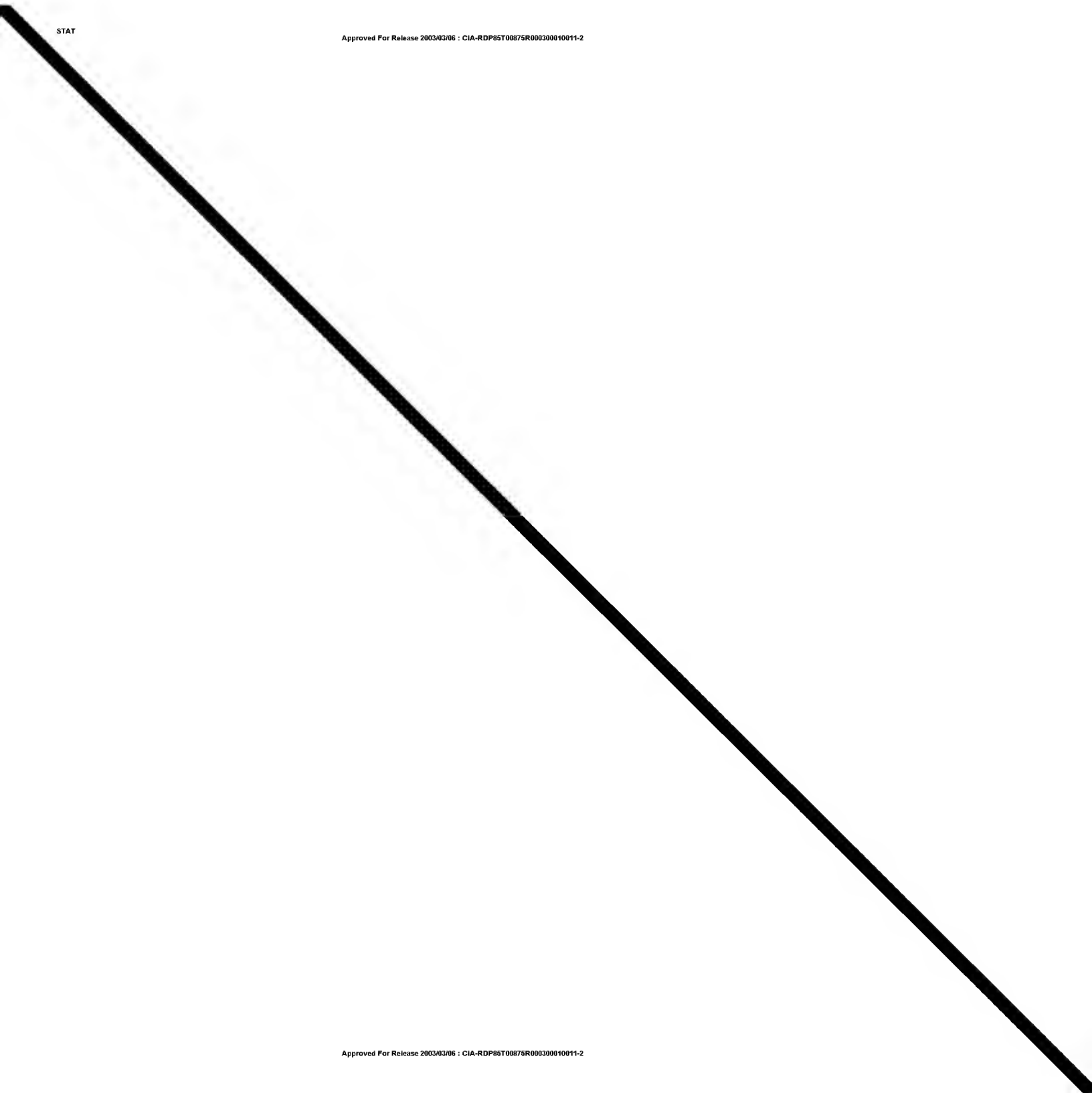

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CONTENTS

WORK WITH MILITARY CADRES -- TO THE LEVEL OF REQUIREMENTS OF THE 24TH CPSU CONGRESS

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People or personnel solve the most complex questions of communist construction, of strengthening the Soviet state and increasing its military might. The material and spiritual values which are now extolled by all progressive mankind have been created by the heroic labor of Soviet patriots. Our people have repeatedly defended the fruits of their labor and their revolutionary and social victories in the wars forced upon us by the imperialists. In the battles for the Soviet motherland the military personnel have honorably carried out a difficult and honorable mission. At present the officers, generals and admirals, in leading the troops, in training and indoctrinating their subordinates and in being aware of the high praise which was given at the 24th Party Congress to their military service, are increasing their efforts to better master the weapons and military equipment and to further raise the combat capability and readiness, military order, organization and discipline in all levels of the military establishment.

Certainly the successful carrying out of the diverse tasks confronting the Armed Forces depends greatly upon the state of personnel work and upon the consideration and implementation of the new demands which have been brought to life by scientific and technical progress generally and by the military-technical revolution in particular. The 24th CPSU Congress paid great attention to this aspect of the matter, having stressed the primary role of the cadres as the direct executors of the party's general line and all its plans in the area of domestic and foreign policy, science, economy and national defense.

During all the stages of military organizational development, the Communist Party has shown and is showing constant concern for the training, recruitment and placement of the leading personnel of the Army and Navy as well as for improving the style of their activities. Here, the basic principle conforms to the instructions of V. I. Lenin that the guarantee for success in all our work consists in the selection of personnel and checking on execution. It must be said that Vladimir Il'ich Lenin was exceptionally able to work with people, to spot the outstanding trait in the capabilities of a person, and to determine his role based on professional, organizational and political qualities. In this area, as in the other areas of party, state and military activities, he set an example of how to solve various personnel problems in a state and party manner.

The Leninist style of work in the broadest sense was and remains the standard in our practical activities. Under the leadership of the CPSU Central Committee and the Soviet Government, the USSR Ministry of Defense has carried out significant work in training commanders, political, engineering and technical personnel, and in the selection and assignment of command personnel. The Central Committee has repeatedly approved special decisions on the state of personnel work, including military personnel. Of importance was the Decree of the CPSU Central Committee "On Measures to Improve Party Political Work in the Soviet Army and Navy." It was dictated by the concern for further strengthening the effectiveness of party leadership in all spheres of Army and Navy life.

The 24th CPSU Congress summed up the results of the intense work done by the party in the area of personnel policy and outlined the ways for improving it. The Accountability Report of the CPSU Central Committee to the Congress took up various aspects of the given problem and outlined specific tasks for the future. The party, the report pointed out, is promoting talented and capable leaders from among the people. Many new workers during the report period were promoted to responsible positions at the center and in the provinces, while the cadres were renewed and supplemented by an influx of new forces.

This policy has also been carried out constantly in the Armed Forces. In all levels of the Army and Navy many young highly qualified and capable officers, generals and admirals have assumed leadership and command positions.

There has been the consistent implementation of the principle of appointing candidates from the field to leading positions in the units, combined units, formations, districts, fleets, institutions and schools. Such a procedure increases not only the incentives but also the responsibility of the commanders and superiors in developing personnel and creates the promise of preferential advancement in service for the officers and generals who have a zealous attitude toward their job, who carry out their functional duties in an exemplary manner and are constantly concerned with improving their skills and knowledge.

In the districts and fleets, in the schools and scientific research institutions, along with a considerate attitude toward the experienced officers, generals and admirals in making maximum use of their experience and knowledge, a firm policy is carried out of indoctrinating and promoting young, gifted and promising personnel. Particular attention is given to improving the quality of the basic levels of command and to reducing the average age of the subunit commanders.

This policy in the work of the personnel bodies has been tested by practice. The positions of the commanders of companies and batteries,

battalions and regiments, as well as their deputies and chiefs of staff, have begun to be filled by officers who, after 2 or 3 years of fruitful work, could be sent to the command faculties of the academies or promoted to higher positions. Measures are being taken to increase the reserve of candidates who are promising in terms of their professional and moral qualities.

At the 24th CPSU Congress it was pointed out that life constantly increases the demands made upon the leading personnel. In the state apparatus, at enterprises, in the production associations and in the Armed Forces, everywhere people are needed who combine high political awareness with good professional skills; specialists able to carry out the party's policy in a knowledgeable manner, solve the questions of economic and cultural development, and who have mastered modern management methods.

The military-technical revolution has introduced fundamental changes not only in weapons, military science and military organization, but also in the methods, forms and content of troop leadership and in the style of activity of all levels of commanders and superiors. Objectively all of this has led to a situation where the demands placed upon the officers, generals and admirals have risen in the most decisive manner. Their responsibility has also risen for maintaining the constant combat readiness of the units, ships and combined units, and particularly for the state of nuclear missile weapons, for the quality of military and political training, and for the indoctrination and training of personnel. Combat duty in the Army and Navy and military discipline have assumed fundamentally new significance.

There has been a sharp increase in the amount of information which must be processed before the correct decision is taken. The amount of work has also increased for the commanders and staffs in the area of supervising the combat activities of the troops. Along with this the commanders and staffs must show constant efficiency and purposefulness in service; each day they must carry out the intentions in implementing the troop training plans, and they must have an enterprising and creative attitude toward the precise execution of the orders and directives of the command.

In the present stage of development of military affairs it is essential that the commanders and superiors possess broad and profound military and special knowledge and approach the solution to the questions of military affairs from the position of Marxist dialectics.

The party considers it very important, said Comrade L. I. Brezhnev, for the communists constantly to master the theory of Marxism-Leninism and knowledge of the laws of social development, and that they be able to orient themselves confidently in the new occurrences of life, assess them

correctly, and draw the proper practical conclusions. The ideological tempering of the communists is an indispensable condition for raising the combat efficiency of our party ranks.

The higher the ideological level and theoretical training of the military personnel, the more freely they can orient themselves in the complex questions of the life and activity of the troops, the more clearly they see the development prospects of the Armed Forces, and the more successfully they carry out their duties.

The necessity of profoundly mastering Marxist-Leninist theory is also dictated by the acute unceasing ideological struggle between the moribund capitalist world and the developing and strengthening world socialist system. In order to be up to the tasks and wage an aggressive struggle against bourgeois ideology and imperialist propaganda, it is essential to have the appropriate theoretical knowledge and the procedural and propaganda skills.

Under present-day conditions the importance of the ideological strengthening of the personnel has become greater. The party has demanded a further improvement in the ideological work in the Army and Navy, an even closer tie between this work and the tasks of the combat training of the troops, the profound effect upon the growth of awareness and activeness of all categories of military personnel, as well as the development of high combat morale qualities in them.

In training and indoctrinating their subordinates, the officers, generals and admirals must themselves be theoretically and politically mature, pedagogically educated, and considerate and thoughtful superiors. In this regard the importance of indoctrinating the indoctrinators has risen. It has long been shown that the real authority of one or another superior is created by his personal example in zealously carrying out his service duty.

Marxist-Leninist studies are a service duty and a party duty of the military cadres. In the Army and Navy a well-organized system of party studies was organized long ago and has been constantly improved. Upon a decision of the party Central Committee, in 1932 Marxist-Leninist training was introduced into the system of command training. Since then it has been an inseparable part of the unified process of improving the professional and political qualities of the personnel.

Compulsory studies are supplemented by political self-education. Our cadres consider it their direct duty to constantly study the works of the founders of Marxism-Leninism, the urgent problems of domestic and international life, the new forms of organizational and party political work created by life, and the recent achievements of science and

technology. Many officers are studying in the correspondence divisions of military schools, in Marxism-Leninism universities, in the evening party schools, and so forth.

Understandably, a rise in the ideological level of the cadres should be carried out on the basis of a thorough study of Marxist-Leninist theory, party policy, and the materials of the 24th CPSU Congress using diverse forms of political studies in the Army and Navy, as well as all the means of verbal and printed propaganda and cultural educational work.

An organic combination of word and deed by all levels of superiors is one of the most important requirements in the political training of personnel as well as for the style of their daily activities.

Under present-day conditions the importance of scientifically sound leadership methods has risen immeasurably in carrying out all the missions of military and political training on a strategic, operational and tactical level. Scientific troop leadership consists in making the most effective and fullest possible use of the military, technical and political-moral capabilities of the troops for achieving their constant combat readiness while relying upon the objective laws of military affairs. A scientifically based approach to carrying out the tasks confronting the Armed Forces should lie at the basis of activities for the entire officer corps.

To correctly lead the troops means to have a long-range view, to have a feeling for the new, and to develop in oneself the remarkable traits of a Leninist-style leadership, that is, professionalism, earnestness in work, purposefulness, and tenacity in implementing the taken decisions.

V. I. Lenin viewed cientific leadership of social processes as one of the basic tasks of communist construction and demanded that the leading cadres possess sound scientific and technical knowledge. Lenin's assessment of the qualities of a leader and his formula that in order to control it is essential to be competent and have a certain scientific education, are very timely at present.

The competence of a military leader is a many-sided concept. It is inseparable from theoretical training. The party has confronted the cadres, including the military personnel, with the task of mastering scientific ideology and a correct procedure for solving theoretical and practical problems.

In basing themselves upon the Marxist-Leninist, dialectical materialistic method of cognition, the officers, generals and admirals should master the special methods of military science and learn to use in practice the leadership principles which correspond to the present development level

of military affairs. They should be able to anticipate the course of events, to concentrate their efforts on the main element and have a creative approach to solving the arising problems.

The military-technical revolution has complicated the training of the Armed Forces and has altered the views concerning their use. At present such concepts as efficiency and the readiness of the command to immediately lead combat activities have assumed particularly important significance. Only the officer, general or admiral who has mastered the modern methods of troop leadership will be on top of things.

We would particularly like to stress one noteworthy quality of our commanders and political workers, our engineers and technicians, and all our military cadres. This quality is party loyalty. Each officer, general and admiral should invest a spirit of party loyalty into his activities, he should teach this to his subordinates and serve as an example for them. Party loyalty presupposes a communist attitude toward the job, irreconcilability toward shortcomings, and the ability to determine one's place in the struggle for communism. The party loyalty of a military leader also is characterized by his ability to consult with the party organization, to rely on it, to work actively in it and direct its activities, as well as not to suppress but rather to support criticism and to be self-critical.

The party attitude toward criticism and self-criticism is an indication of the political maturity of a person. Constant exactingness, a loyalty to principles and personal discipline are indispensable qualities for the commander and superior as well as the guarantee and sound basis for their successful activities. They must work constantly so that the regulations, orders and instructions are precisely carried out in the area assigned to them, and so that discipline is strictly observed.

Strictest discipline and self-discipline are an indicator of the high awareness and responsibility of the cadres and one of the most important tasks, the necessity of which was emphasized by the 24th CPSU Congress. State and party discipline concerns everyone equally, and particularly the leaders to whom responsible positions have been entrusted and from whom the demands are particularly high.

"The leading positions," said L. I. Brezhnev in the Accountability Report of the CPSU Central Committee to the 24th Party Congress, "are not assigned to any of us in perpetuity. Socialist discipline is a discipline which is uniform for all members of society and obligatory for all and each."

The party has placed and does place constant high demands upon the military cadres and teaches them to have a state attitude toward any assigned job, to value the confidence shown, to conduct oneself properly in service and

everyday life, and to place public interests above all else. The strictest measures have been applied against individuals who violated discipline, who did not draw proper conclusions from criticism, and who neglected the standards and principles of communist morality and ethics, no matter what positions they held.

The indoctrination of cadres in a spirit of exactingness for oneself and one's subordinates and in a spirit of a conscientious attitude toward the assigned job presupposes a thorough study of the people in practical work, an objective assessment of their labor, as well as a knowledge of their personal life, their personal character traits, their weak and strong points, and their professional and political moral qualities. Without an educational-psychology and scientific approach to studying people, at present it is impossible to solve personnel as well as other questions related to training and indoctrinating personnel.

As is known, V. I. Lenin was devastatingly critical of conceited administrators or superficial dilettantes who in their conclusions were led not by scientific data and sound thinking, but rather by their own whims. "To dismiss out of hand the work of hundreds of the best specialists," pointed out V. I. Lenin, "to talk one's way out with vulgar jokes, and to flaunt one's right 'not to approve,' isn't this shameful?... There should be fewer methods like those of Tit Titych ('I may approve or I may not approve')..." (Complete Collected Works, Vol 42, pp 344, 347)

The Accountability Report of the CPSU Central Committee to the 24th Party Congress also mentions such supposed leaders: "It does happen that one or another leader suddenly gets it into his head that he has discovered all the secrets of life and that he knows everything. And thus he begins to give instructions on all questions and to take charge of everyone instead of making skillful use of the experience and knowledge of others."

However, the other extreme is also dangerous when the leader "takes precautions," studies a perfectly obvious question, and holds long and fatiguing meetings, assemblies, and other measures. Vladimir Il'ich Lenin taught us not to "dilute" personal incompetence and indecisiveness in endless collectivity, and to remember the specific features of a military organization in the system of other state institutions and institutes.

In recognizing the importance of collectivity in military leadership, the significance of one-man command must also be stressed. The principle of one-man leadership under the conditions of a military organization was considered to be an objective necessity by V. I. Lenin. The Armed Forces cannot function without a firm daily organization of life, without strict military order, without the clear and accurate fulfillment of the regulations, instructions and orders, without obedience and subordination. Here the entire rhythm of service is organized and directed by the one-man

commander. He is the chief figure in the training and indoctrination of the personnel as well as in leading the life, the training and combat activities of the troops. For this reason, in the Army and Navy constant concern is shown for strengthening one-man leadership and for asserting the authority of all levels of commanders. The strong-willed and exacting commanders who know their job excellently must be supported in every possible way, they must be helped in establishing relations with subordinates directly and on the basis of the military regulations,[1] they must be trained in the practices of indoctrination, and promoted more rapidly.

The correct placement of the officers, generals and admirals and their assignment to those positions where they can do the maximum good depend totally upon how strictly the Leninist principles of the selection of cadres for their political and professional qualities are observed, that is, from the standpoint of conscientiousness, the political position, the knowledge of one's job, and administrative capabilities (V. I. Lenin, Complete Collected Works, Vol 53, p 97). They depend also upon how correctly the experienced and young specialists are combined, and how objectively the very process of studying, selecting and assigning personnel is organized and implemented.

In the troops and fleets a good deal has been done to improve the style and methods of this work. The cadres are studied directly in terms of the results of service activities, as well as in the course of exercises, staff games, maneuvers, and so forth. The candidates for the position of regimental commander and higher, before appointment, are examined at the military councils. The commanders of the combined units and units, in settling the question of the reassignment of officers, as a rule, consult with their deputies and the secretaries of the party organizations and consider their opinion. The established practice of having the commanders and superiors talk with the officers before their reassignment is also of great indoctrinational significance.

Such an approach in solving personnel questions makes it possible to better and more fully consider the political, professional and moral qualities as well as the knowledge and capabilities of a man, to prevent mistakes, and to promptly spot and promote the most worthy men.

Effective measures have been worked out and implemented in the interests of further improving the preparation of the cadres and staffing the Army and Navy with them. There has been a complete examination and clarification of the sources for providing the Armed Forces with officers, including for those specialties for which training is provided in the

1. This problem is dealt with in this issue of the journal in the article "Pedagogical Tact."

civilian schools. The system of personnel training in the military schools has been substantially improved. A number of secondary schools have been converted to higher ones. The training programs for the officer candidates and students as well as the specialization of the institutions of higher learning are systematically adjusted.

One can fully understand the close attention which is given to the military institutions of learning for the future of the Armed Forces is founded and forged within the walls of the military schools. The time will come when today's lieutenants replace their senior comrades, and the military chiefs and leaders will emerge from their midst. Precisely this determines the necessity of carefully selecting the command, political and instructor personnel of the institutions of higher learning, improving the training of the scientific pedagogical personnel, improving the forms and methods for the training and indoctrination of the officer candidates and students, for considering the needs of the troops and maintaining constant touch with them. Outstanding officers and generals who have acquired practical know-how and tempering in the units, the staffs, and on the ships and who have evidenced an inclination for teaching are assigned to the higher schools. With a feeling of satisfaction we can rightly point out that the number of instructors with scientific degrees and titles has risen year in and year out.

An extensive network of permanent advanced training courses has been set up for raising the skills of officer personnel, for acquainting them with new achievements in the area of military art, as well as for studying modern equipment and weapons. Such courses have been completed by many generals, admirals and officers. Among them are commanders and members of military councils of the districts and fleets, commanders and chiefs of the political bodies of combined units and units, unit commanders and their deputies, as well as specialist officers of the branches of arms and services.

The system for the training and retraining of Army and Navy personnel continues to be improved and this process, as they say, is irreversible.

The development of the Armed Forces occurs in an organic link with the improvement and development of the political, moral, psychological and military qualities of all the personnel and their leading group, the officer corps, which is the backbone of the Army and Navy and the carrier of the military traditions of the Armed Forces.

Young officers comprise the most significant part of our officer corps, and consequently, of all Soviet military personnel. One cannot help but consider the role and prospects of this large detachment of personnel as was pointed out by the Minister of Defense, Mar SU A. A. Grechko, at the

Armed Forces Conference of Young Officers as well as in other instructions, orders and commands.

And here the essence is not only that they are replacing the older generation, but also that they stand closest to the masses of soldiers, sailors and sergeants and directly indoctrinate and train them. Precisely for this reason they require both help and support as well as greater independence in solving all service questions involving the maintenance of a high level of combat readiness, discipline and order, technical supply and everyday amenities. It is also essential to consider that in many instances the young officers themselves hold key positions in the combat crews and subunits and directly control powerful weapons, and that the carrying out of missions to a decisive degree depends upon their personal training and upon precise and correct actions.

The young officers who have graduated from the military schools have a broad political viewpoint, diverse theoretical preparation, and sound knowledge in their specialty. The training obtained in the school is a sound foundation for subsequent service. But for successful service knowledge alone is not enough. In order to become a real master of military affairs and an able indoctrinator, practical experience must be acquired in the troops.

Of important significance is the initial period of service in the unit, on the ship, and elsewhere.[2] Here the knowledge acquired in the school is reinforced, procedural skills are improved, and experience as a leader and indoctrinator is acquired. In the districts and fleets all the conditions have been created for the rapid strengthening and development of the military professional qualities required by the interests of military service in the young officers. The elaborated system of views, the forms and methods of work with them are tested out by time.

This system is also used for the development of the young officers who have been called up from the reserves in accord with the Law on Universal Military Service. The arrival of the given category of officer personnel in the troops has confronted the commanders, the political organs, the staffs and the personnel bodies with new specific jobs and has necessitated a more differentiated solution to the practical questions in the area of personnel work.

The officers who have arrived in the troop units and ships from the reserves have the most varied degree of military and special training. Their experience in life is not the same, they are not used to the

2. This problem is treated in greater detail in publications under the general heading "Indoctrination and Development of Young Officers" (see Voyennaya Mysl', 1970 and 1971).

hardships of military service, and they do not always have a clear understanding of obedience, military subordination, and the necessity of the unfailing observance of military order. Their military and professional skills are insufficient, and because of this, this category of personnel most needs an improving of military-technical and particularly procedural preparation, as well as the acquisition of military pedagogical skills.

For this reason before they assume their position training courses must be held for them without fail and significantly more attention must be given to providing them with all-round and concrete aid. Their activities must be supervised while observing a tactful approach, respecting their personal dignity, and remembering that a person may be in circumstances which are unusual for him and still may not know or be able to do many things.

Experience shows that careful work with the young officers who have arrived in the districts from the reserves brings positive results. Service in the troops, intense army life, a feeling of personal responsibility for the assigned job, and the purely psychological aspect of understanding and mastering a new unknown thing ultimately make themselves felt. The person acquires confidence, he gains the qualities of a commander and indoctrinator, and often decides to devote his life to military service.

Certain of the measures taken have helped to keep officers called up from the reserves in the Army and Navy. For example, the opportunities have been broadened for their admission to the higher military schools. The persons who have completed civilian institutions of higher learning and who have acquired some military training there are permitted to be admitted to the command and political academies on equal footing with officers having a secondary military education, if they have 2 years of experience in serving in command and political positions and meet all the other conditions for admission to military schools. Persons with a higher civilian education who cannot be used in the army in their immediate specialty are permitted to study in the correspondence departments of the higher military schools, that is, obtain a higher military education without leaving service. This, certainly, opens up prospects and contributes to service development.

Conditions have also been created for completing a secondary military education by passing examinations without attending lectures at the military secondary schools for those officers who do not have a secondary military or specialized civilian education, and who have been appointed to command or technical positions as well as to the positions of political officers.

But with all the attention from the command, a young officer cannot count on significant success and advancement in service if from the very first day in the unit or on the ship he does not deepen and broaden the knowledge acquired in the school and gain practical military experience. The immediate and direct superiors must not only help but also supervise all the service activities of the young officers, and organically combine supervision and aid.

Life shows that the thirst for knowledge and the example of fellow servicemen evoke in the young officers a desire to make maximum use of all opportunities for raising their theoretical and special training level, to continue their education in the higher military schools and in courses for advanced training and retraining, as well as to participate in systematic independent studies. Both the superiors of the young officers as well as the personnel sections should constantly keep this aspect of the matter in their field of vision.

Successful work with the young officers depends greatly upon the degree that the demands made in service are combined with concern for the needs and requests of the young officers, as well as for organizing adequate material conditions and cultural amenities. Modern troop organization as well as the constant concern of the party and the government for improving the life of the troops make it possible in each garrison from the very outset of a young officer's service to provide him with conditions for a normal personal life, for self-improvement and recreation.

In recent years work with young officers in the units and combined units has become more concrete, constant and planned. This is expressed, in particular, in the elaboration of special measures by the command and political bodies, by the regular conducting of demonstration and procedural instructive exercises, assemblies, seminars, and so forth. It has become a good tradition to periodically organize meetings for discussing practical tasks and exchanging experience.

These and other measures help the young officers in more rapidly overcoming the difficulties of the initial period, to take an active part in the affairs of the unit and social work, and to achieve high results. Many of them in 1 or 2 years acquire a class rating, and show excellent successes in military and political training. Statistics indicate that many young officers even during the first 2 years of service in the troops are promoted. The next military ranks are given to outstanding subunit commanders ahead of time.

The USSR Minister of Defense, Mar SU A. A. Grechko, expressed warm praise for the young officers in his speech at the 24th CPSU Congress. He said that ebullient energy and military verve are inherent to them. They possess a rich reserve of knowledge, they train and indoctrinate their

subordinates skillfully, and together with the exper.enced personnel comprise that amalgam which gives the necessary strength to the complex military organism.

For a further improvement in the work with the young officers it is very important to have a scientific approach to this problem and to widely discuss its various aspects in the military press. The articles published on this subject as well as scientific research provide essential help to the commanders and chiefs in improving the methods, forms and means of the indoctrination and development of the young officers.

* * *

Let us briefly sum up what has been said.

The work with the personnel, that is, their training, indoctrination, ideological conditioning, and the formation of the qualities of a Soviet citizen, patriot and soldier is a complex, responsible and also necessary sphere of activity. Here there must be broad and profound knowledge as well as solid human and pedagogical experience. It is very important that our cadres improve their pedagogical skill, consider the requirements of psychology in the work with their subordinates, that they follow scientific data and observe the principles of the scientific organization of labor in their activities. This is all the more essential as the task of training the troops and leading them in all types of military and political training has become more complex. With the reduced period of active military service, the personnel must be armed with an ever broadening amount of military and special knowledge. As the instructor, educator and organizer of the training process, this places great demands upon the officer and confronts him with complex problems.

The CPSU has always given primary significance to the selection, indoctrination and development of cadres. The 24th Party Congress has also given great attention to this. The Congress documents have set the task of constantly broadening and consistently improving the system for training and retraining personnel on all levels, including the command level. Here also it is pointed out that a rise in the level of leadership of all aspects of society's life and organizational and political work in the masses is inseparably tied to an improvement in the recruitment, placement and indoctrination of the cadres.

The decisions of the 24th CPSU Congress are a militant program for work with the military personnel. The task is to see to it that all areas which insure the combat readiness and combat training of the troops are led by political mature, knowledgeable and capable organizers.

The party requires that the supervisory cadres, including the military ones, have a perfect mastery of modern management methods, that they possess a feeling for the new, see the prospects of development, and be able to find the most effective ways for solving arising problems and using the knowledge and experience of others.

Our personnel policy in the future should also be aimed at promoting young, promising officers, generals and admirals, along with a considerate attitude for the old personnel and maximum use of their experience.

The party obliges us to combine respect and trust toward the cadres with principled exactingness toward them. We must also raise the responsibility for the assigned job and strengthen discipline and efficiency. The party has also stressed the necessity that the cadres study constantly, improve their ideological and theoretical level, and master the achievements of science and advanced practice.

In following the materials and decisions of the Congress, the commanders-in-chief, the military councils, the commanders, as well as the political and personnel bodies will raise the training and indoctrination of the cadres, as well as their recruitment and placement, to a new higher level.

V. I. LENIN ON SOCIALIST LEGALITY AND ITS ROLE IN THE ORGANIZATIONAL DEVELOPMENT OF THE SOVIET ARMED FORCES

Col of Justice P. Romanov, Candidate of Legal Sciences, Docent, and Col of Justice V. Belyavskiy, Candidate of Legal Sciences

Socialist legality is the strict and precise observance of Soviet laws by all the state bodies, officials, by the social organizations and citizens. It has always played an enormous role in the creation and development of socialist social relationships, in strengthening the security of the Soviet state, in defending the rights and interests of the Soviet citizens, and in the communist indoctrination of the workers. Legality and strong law and order, in being the basis for the normal life of our society and its citizens, at the same time are an important factor in providing the constant combat readiness and high combat capability of the Soviet Armed Forces.

The founder of our party and state, V. I. Lenin, was an ardent supporter of socialist legality and a decisive proponent of using its organizing and indoctrinational force in all areas of state and military development. For the first time in Marxist literature, Vladimir Il'ich scientifically formulated the basic theoretical provisions concerning the essence and peculiarities, the characteristic traits and principles of socialist legality, as well as its role in the construction of socialism and communism; he also pointed out the practical ways for realizing legality in life.

V. I. Lenin was the creator of the first basic legislative enactments of Soviet power, including: the peace and land decrees, the decree governing the formation of the worker and peasant government, and other laws which reinforced the victories of the Great October Socialist Revolution. Inseparably linked with his name are the elaboration and ratification of the first military legislative enactments of the Soviet state, that is, the historic Decree Governing the Creation of the RKKA [Worker-Peasant Red Army], and the Decree Governing the Organization of the RKKF [Worker-Peasant Red Navy]. Other major military laws which formed the basis of Soviet military law and order were also worked out with the direct involvement of Vladimir Il'ich.

Lenin's approach to the problems of law and legality was essentially a political approach. Having completely unmasked the antipopular essence and role of bourgeois law and legality and having shown the historic necessity of their abolishment, Lenin proposed and founded the task of creating socialist law and establishing revolutionary legality. He taught

that they should be seen not as abstruse legal concepts and not formal attributes of "democracy in general," but rather an acute political weapon in the struggle for establishing worker power, a method for implementing the dictatorship of the proletariat and the functions of the Soviet state, a necessary condition for organizing the defense of revolutionary victories and the development of the Soviet Armed Forces, as well as a means for strengthening and developing the socialist system of social relationships. Soviet laws, Lenin taught, express the policy of the Communist Party and the Soviet state, including on the questions of military organizational development. Legality serves, consequently, as one of the means for implementing this policy.

In stressing the political content of legality, V. I. Lenin pointed out: "Law is a political measure, it is political" (Complete Collected Works, Vol 30, p 99).

The Leninist positing of the question concerning the political content of legality is of enormous practical significance. It clearly defines the role and place of legality in the arsenal of means by which power is exercised in a socialist state. From it inevitably the conclusion follows that socialist legality is the most important method for implementing the dictatorship of the proletariat and an organic property of socialist democracy.

Lenin's ideas on socialist legality have fully maintained their theoretical and practical validity in our times, when the Communist Party is waging a constant struggle for the strict observance of legality, for fully eradicating the slightest violations of law and order, for eliminating crime and removing all the factors which cause it.

The Accountability Report of the CPSU Central Committee to the 24th CPSU Congress pointed out: "During the report period the Central Committee and the Soviet Government have continued to carry out measures in the area of strengthening legality and law and order as well as in indoctrinating citizens in a spirit of observing the laws and rules of the socialist community."

The measures being carried out to further improve Soviet (including military) legislation, to strengthen state, labor and military discipline and to increase the struggle against crime and violations of public order and individual rights derive fully from the Leninist understanding of the essence and significance of socialist legality. "...It is essential," pointed out Vladimir Il'ich, "to hold sacred the laws and prescripts of Soviet power, and to see to it that they are carried out by everyone" (Complete Collected Works, Vol 39, p 155). "Our laws are compulsory," he taught (Complete Collected Works, Vol 42, p 426).

Soviet laws serve as a regulator of human conduct in the interests of society; they order social relations, contributing to their improvement and progressive development; and they protect the Soviet social and state system as well as the rights and interests of the citizens.

The will of the Soviet people and the will of the state are formulated in laws and are expressed as a general obligatory requirement. Concerning this aspect of legality in Lenin's works there is the following fundamental statement: "...Will, if it is state will, should be expressed as a law established by power..." (Complete Collected Works, Vol 32, p 340).

The Leninist theses concerning the essence, role and tasks of socialist legality apply also to the Soviet Armed Forces. The Communist Party is doing everything so that our Armed Forces are a precise and well coordinated organism and have high organization and discipline. "To strengthen the Soviet state means also to strengthen its Armed Forces and to raise the defense capability of our motherland in every possible way. As long as we live in a troubled world, this task remains one of the main ones!" states the Accountability Report of the CPSU Central Committee to the 24th CPSU Congress.

The role and significance of the strict observance of the laws and the legal enactments issued on their basis in the Army and Navy are greatly determined by the specific features of the military organization and by the tasks which the Armed Forces must carry out.

A detailed and clear regulation of all the life and activities of the troops as well as the rights and duties of all military officials is an objective necessity. This is achieved with the aid of legal enactments expressed in the regulations, orders, manuals, instructions, and so forth.

The legal regulation of military organizational development provides a system of relations in the Army and Navy which, in being based upon the general principles of Soviet law, in every way conforms to the character of modern warfare and the requirements of military science. With the aid of legal enactments the structure of the Soviet military administrative apparatus, the functions and competence of its bodies, and the rights and duties of the officials are established and maximum clarity is introduced into the military organization.

Socialist legality is the basis of state and military discipline and the most important condition for fully realizing the rights and legitimate interests of the military personnel.

The strict observance of socialist legality in the Army and Navy also plays an enormous indoctrinational role and is the most important means for indoctrinating the men in accord with the rules of the socialist

community and the precise observance of the duties laid down by the regulations. The organization of military life in accord with the laws and regulations helps to raise the legal awareness of the servicemen, to instill in them a respect for Soviet laws, and to form habits and conduct which conform to the interests of Soviet society as well as to the tasks of maintaining high combat readiness of the troops.

Only on the basis of legality is it possible to successfully carry out the most important Leninist principle of military development, that is, the principle of one-man command. It has a sound legal basis and is carried out in strict accord with the laws and military regulations which precisely determine the rights and duties of the sole commander. Military legislation has given the commanders a range of powers which provide for the successful carrying out of their jobs, unconditional control over all aspects of the life and activities of the unit, as well as their independence. At the same time precise legal guarantees have been set so that one-man command is carried out exclusively on the basis of and within the law.

V. I. Lenin genially foresaw that as our society develops the role of socialist legality will constantly grow (Complete Collected Works, Vol 44, pp 328-329). This process is objectively determined by those new grandiose tasks which confront the party and the people in the area of communist construction. It is caused by such factors as the necessity of further strengthening the socialist state, social and state discipline, the constant improvement in social relationships, the broadening of socialist democracy, and greater participation of the broad working masses in running the nation.[1]

The strengthening of legality is an important condition for social progress and for the further successful advancement along the path of creating a communist society. Its greater role is also characteristic for the development of the Soviet Armed Forces as an important part of the state mechanism. However, aside from the given general factors, this process results from the effect of factors which are closely tied to the specific features of the Army and Navy and by the type of tasks carried out by them. This gives particular significance and acuteness to the questions of strengthening socialist legality in the Armed Forces.

At the present stage, the following factors can be considered as the most important.

The scientific and technical revolution in military affairs which has necessitated substantial changes in the organization and structure of the

1. Problemy Sovetskogo Gosudarstva i Prava v Sovremennyy Period (Problems of Soviet State and Law in the Modern Period), Izd-vo Nauka, 1959, pp 254-255.

Armed Forces has led to the necessity of broadening the sphere of legal regulation for certain aspects of military activities and reinforcing them in legal enactments.

For this reason new complexes of legal enactments have appeared and there has been an increase in the range of relations in the Army and Navy which are regulated by laws, military regulations, orders, instructions and other military legal enactments.

The greater aggressiveness of imperialism and the exacerbation of the international situation have necessitated a high level of constant combat readiness, vigilance, and the strictest observance of state and military secrecy. Under these conditions it has become more important to precisely observe the obligations of the duty shifts and combat crews as stated in the corresponding field manuals, regulations, instructions and orders. There is also a greater need for clarity in the actions of each superior and subordinate in different situations considering the degree of combat readiness and the assigned missions. The violation of legality in this area of military relations and the slighest deviations from the established order and rules are extremely dangerous. They can cause enormous harm to the defense capability of the nation.

The increase in the role of scientific troop control in connection with the qualitative changes in military affairs, the sharp increase in the volume of information received by the control bodies, and the necessity of quick decision making and the informing of the troops of the decisions under the conditions of a complex and constantly changing combat situation have necessitated the unfailing implementation of the basic organizational principles of military control which have been reinforced in military legislation. These principles are: one-man command on a party basis, centralized and flexible control, and strictest military discipline. As never before in the past there has been an increase in the significance of precise execution by officials of the service functions established by the laws, military regulations and other legal enactments and also of coordination in the work of troop control bodies.

The necessity of high professional training of each serviceman and exceptional efficiency of actions in the different-sized collectives increases the role of firm military order and discipline and the strict observance of the laws, military regulations, orders, manuals and instructions of superiors aimed at strengthening internal order in the units and subunits, preventing and anticipating the slightest manifestations of a lack of discipline or attempts to avoid carrying out orders, laxness and carelessness.

The equipping of the Armed Forces with diverse weapons, complex military equipment, radioelectronics, telemechanical and other modern instruments

is inseparably tied to the ability to use them correctly. And this also raises the role of constantly observing the rules for handling them as stated in the manuals, regulations, guides, instructions and other legal enactments, the traffic rules and the rules for operating military and transport vehicles, in addition to the rules for the fullest and most rational use of their capacity.

The complicating of material and technical supply for the troops and the fleets in connection with the growing need for different numerous technical devices, spare parts, fuel and ammunition, as well as for creating definite reserves, makes it essential to precisely observe the rules for material and technical supply, for accounting for monetary, food and clothing allowances, for the safekeeping of supplies at storage areas, depots, in the troop units and on the ships, as well as for using them in accord with the current legal enactments.

The further rise in the role of the ideological conditioning and the psychological and moral strength of the troops under the conditions of using modern weapons requires constant attention on the part of commanders and superiors of all levels as well as the Army and Navy political workers to the constant propagandizing of Soviet laws and military regulations as one of the means for the communist indoctrination of the men and for developing high combat morale qualities in them. In this regard it is very important to strictly observe the legal standards directed at achieving correct relations between military personnel, the realization of their legitimate rights and interests, and the indoctrination of psychological strength, a will for victory and a readiness to overcome any difficulties.

All practical activities in the area of strengthening military law and order can be successful only in observing the requirements of socialist legality which are scientifically established in the letter of V. I. Lenin to the Politburo "On 'Double' Subordination and Legality" (Complete Collected Works, Vol 45, pp 197-201) and in other works. Here of most important significance is the thesis concerning the unity of legality in the Soviet state. "...Legality," wrote V. I. Lenin, "should not vary from city to city, but should be unified for all of Russia and even for the entire federation of Soviet republics" (Complete Collected Works, Vol 45, p 198).

The unity of socialist legality also means the same understanding and application of Soviet laws by all state bodies and officials, without exception, both at the center and in outlying areas, in all the ministries and departments, including in the Army and Navy.

The unity of legality resides in the very nature of the socialist system and the Soviet Army and Navy. Although the Armed Forces have certain

specific features, the requirements of legality extend completely to them. This derives from the Leninist principle of the unity of general Soviet and military development.

Also characteristic are the instructions of Lenin on the need to strictly observe the laws in the Army and Navy not only in peacetime but also during war. He felt that during the period of a war, the importance of legality does not decline, but, on the contrary, rises even more (Complete Collected Works, Vol 37, p 129). The extreme situation of wartime is no justification for failing to observe Soviet laws. On the contrary, it should be accompanied by a rise in discipline and legality.

In accord with Lenin's instructions, military organizational development in our state and the activities of the armed forces have always been carried out on the basis of uniform socialist legality. During the period of the Great Patriotic War the party achieved the observance of legality in the Army and Navy, in the relations of the troops with the local population (including with the population of the states which were in a state of war with the USSR), in treating prisoners of war, and so forth. Here the party subordinated the struggle for the observance of socialist legality to the tasks of defeating the enemy. On this level particular attention was given to strengthening military discipline. The slightest deviations from the requirements of legality were strictly stopped.

The principle of the unity of socialist legality requires that the laws extend to all Soviet citizens without exception, regardless of the position, title or rank held by them. This applies without any exception to military personnel as well. The military oath, the Internal Service Regulations, the Disciplinary Regulations of the Armed Forces and other legal enactments emphasize the obligation of military personnel to obey Soviet laws. This principle also demands that no decision of local power should run contrary to the law. For this reason all legal enactments, orders, directives, regulations, instructions, provisions and other such documents directed to the troops and fleets should conform strictly to the laws and decrees of the Presidium of the USSR Supreme Soviet, to the decrees of the USSR Government and to military regulations.

The unity of socialist legality in the troops will be fully attained when no order or no decision of a commander differs from the law. Unfortunately, instances are still encountered where individual commanders and superiors violate the requirements of the laws and military regulations. These violations include the exceeding of disciplinary rights, a departure from the procedure for granting leave, the incorrect holding for material liability, and so forth. Many of these violations at first glance are minor. However, it must not be forgotten that even the slightest instances of illegality cause harm to society; they have a negative effect upon

military law and order and create the conditions for the occurrence of infractions of the law, and sometimes even crimes.

The instructions of V. I. Lenin on the impermissibility of a contradiction between legality and expediency (Complete Collected Works, Vol 45, pp 198-199) are also of important significance for strengthening legality in the Armed Forces.

The Soviet laws, military regulations, and the orders of the USSR Minister of Defense stipulate the most expedient ways and means for achieving the set goals and for carrying out the missions confronting the troops and military personnel. They settle these questions from a standpoint of state expediency and the interests of combat readiness and capability in the Armed Forces considering the higher expediency to which the application of law should also be subordinate. No commander or superior can make a decision which contradicts the provisions of the law under the pretext that, in his opinion, this decision in the given specific instance is more expedient that what is prescribed by the law.

As is pointed out in the Accountability Report of the CPSU Central Committee to the 24th CPSU Congress, "any attempts to deviate from the law or to circumvent it, no matter for what reasons, cannot be tolerated. A violation of individual rights or the infringement of the dignity of citizens likewise cannot be tolerated. For us, communists, who are supporters of the most humane ideals, this is a matter of principle."

Legality requires the unfailing execution of legal standards regardless of the subjective view of the executor concerning the expediency of inexpediency of the legal prescripts. This protects military relations against happenstance and an arbitrary approach.

The most expedient solution must be found within the limits of the laws and regulations, in rationally and soundly applying the legal standard to each specific instance in accord with those goals which were set in formulating the given standard. Here it is essential to recall the warning by V. I. Lenin against such an application of a law the result of which is something that is "formally correct but essentially a mockery" (Complete Collected Works, Vol 43, p 328).

Military officials have an important role to play in applying the standards of the law, particularly so, since in a number of instances military legislation gives a commander or superior the right to choose the most expedient action under certain conditions. For example, Article 32 of the Disciplinary Regulations gives a legally empowered commander the right to determine whether or not materials concerning a guilty party will be submitted to the military investigatory bodies or matters will be limited to a disciplinary reprimand, if for the misdeed committed the law

envisages various punishments in terms of the degree of guilt, and of these punishments some are imposed by the court while others are imposed through disciplinary procedures. The degree of the expediency of the decision taken depends greatly upon the overall political and legal training of the superior.

The laws and the legal enactments promulgated on their basis, even when seeming obsolete, must be carried out without fail as long as they are in effect or until they have been repealed or changed by the legally empowered bodies in the established procedure. The most flagrant violations of legality are the still encountered attempts by individual commanders and administrative personnel to circumvent the law under the pretext of the expediency of a different decision in the specific instance. V. I. Lenin reacted sharply to such instances. "The decrees must not be circumvented: the court should take action for such a proposal" (Complete Collected Works, Vol 50, p 266).

V. I. Lenin also pointed to the close tie between legality and culture. He stressed that if laws are not observed "no matter what the case, there can be no question of either maintaining or creating a standard of culture" (Complete Collected Works, Vol 45, p 199).

The correct understanding and the conscious execution of the requirements of the laws help to develop and disseminate socialist legal awareness as well as to raise the cultural level of the military personnel.

Legal culture presupposes not only a knowledge of legislation, but also a profound respect for Soviet laws, their correct understanding and application in strict accord with their purposes. The higher the legal culture, the better the conditions are for achieving legality and law and order. For this reason in the Army and Navy the questions of legal indoctrination and the development of legal propaganda among military personnel have assumed great timeliness.

Lenin's instructions concerning the relationship between legality and a standard of culture are particularly timely for the state bodies and the officials of the Army and Navy. They have the duty of struggling for legality, and in their activities they must resolve diverse questions of a legal nature, organize the legal indoctrination of subordinates and combat crime.

A constant improvement of Soviet legislation is a necessary condition for insuring legality. It is important that the laws conform to the needs of society and not lag behind the requirements of life.

In following the instructions of V. I. Lenin, the CPSU and the Soviet Government have always given great attention to military legislation. The

changes in legislation have proceeded from the needs of developing and strengthening our Armed Forces.

In recent years, as during the lifetime of V. I. Lenin, major military legal enactments have been proposed for ratification to the superior bodies of state power. The Presidium of the USSR Supreme Soviet has approved the following: the Disciplinary Regulations, the Internal Service Regulations and the Manual of Garrison and Guard Duties of the USSR Armed Forces, and the Regulation Governing the Material Liability of Military Personnel for Damage Caused to the State, the Regulation Governing Officer Comrade Courts of Honor, and other enactments. This has given to these documents great legal force and stability.

In October 1967 the USSR Law on Universal Military Service was approved, and this was a new important stage in the development of Soviet military legislation and in strengthening socialist legality in the USSR Armed Forces. It conforms fully to the demands presently placed upon the USSR Armed Forces and is aimed at improving the training of the youth for defending the nation. It raises the personal responsibility of all citizens for carrying out their sacred duty to the motherland and it clearly stipulates the conditions and the procedure for the Soviet citizens to carry out their honorable military obligations.

Other military legal enactments have also been significantly modified. At the same time significant work still remains to be done in further improving military legislation. Here it is important to consider the changes which are occurring in the means and methods of waging war and in military science as well as the changes in military relations, in the structure of the Armed Forces and in Army and Navy personnel.

The Soviet Armed Forces are characterized by a constant strengthening of socialist legality and military law and order. In the Army and Navy the number of legal violations and incidents is declining. This process is of an objective sort; however, it does not occur automatically or spontaneously, but is rather the result of active and purposeful work by the CPSU and the Soviet state, by the command, the political agencies, the military justice personnel, as well as by the Army and Navy community in providing legality and law and order in the troops. Here an important place is occupied by the indoctrinational and party political work in the units and on the ships and by the work in the area of the legal indoctrination of military personnel. As was pointed out in the Accountability Report of the CPSU Central Committee to the 24th CPSU Congress, "respect for law should become the personal conviction of each person."

In accord with the requirements of the CPSU Central Committee, in the troops more active work has been started in the area of legal

indoctrination. This work is now being carried out on the basis of a plan of measures approved by the Main Political Directorate of the Soviet Army and Navy. In it a proper place has been given to legal propaganda as V. I. Lenin ascribed great significance to this. In a letter to the Commissariat of Justice on 15 April 1918, Vladimir Il'ich was interested in precisely what had been done "for legal propaganda among the population and among the workers and poorest peasants" (Complete Collected Works, Vol 50, p 59). The forms of legal propaganda are most diverse and include: lectures, reports, talks, question and answer evening meetings, movie and lecture meetings on legal subjects, and so forth. Positive results have also been achieved by the measures to raise the legal knowledge of officers and the officials of the military administrative bodies. These measures include exercises in the party studies system, commander training, and in the legal knowledge schools.

The Communist Party and the Soviet Government in their work on providing legality and law and order proceed from Lenin's instructions that the method of conviction should be combined with the method of compulsion in terms of those persons who do not voluntarily wish to carry out their duty and who commit infractions of the law.

V. I. Lenin pointed out that conformity with the laws is insured: "in the first place, by supervising the observance of the law, and secondly, by punishment for the failure to observe the law" (Complete Collected Works, Vol 2, p 293).

In the Armed Forces various organizational and legal means are used for strengthening legality. The most effective are internal control and checking on the observance of laws, military regulations, and the orders of the Minister of Defense. These are carried out in various forms, including: troop inspections, visits by the commanders and staff workers to specific areas, inspections and audits of the administrative activities of the military units and institutions, hearing reports at officer meetings and sessions of the military councils on the state of legality and military discipline, and so forth.

The Legal Service of the USSR Ministry of Defense has an important place in the activities of strengthening socialist legality in the Army and Navy. It must aid in every possible way the military administrative bodies and the officials in exercising their powers in accord with the Soviet laws. The activities of the legal service in essence are a component of internal control as one of the methods for providing legality and law and order in the USSR Armed Forces.

One of the most important methods for achieving legality and law and order in the troops is the activities of the military prosecutor agencies. These activities are carried out in accord with the Provision Governing

the Military Prosecutor as approved by the Ukase of the Presidium of the USSR Supreme Soviet on 14 December 1966. The USSR General Prosecutor and the military prosecutors under him provide the highest supervision of the observance of laws in the Armed Forces. The military prosecutors have the job of combatting crime and providing constant supervision over the precise observance of the laws by the military administrative bodies in the center and in the outlying areas. The military tribunals also have an important role. They combat encroachments on the security of the USSR, the combat capability of the troops, military discipline, and the procedure established in the Armed Forces for performing military duty by administering justice.

People's control and the control of state and departmental arbitration are also among the methods for providing legality in the Soviet Armed Forces.

The strengthening of legality is also aided by the participation of the Army and Navy community in the struggle against violations of the law, in preventive work, as well as by the right of servicemen to protest illegal actions and orders by military officials. The effective struggle against crime and incidents can be carried out only under the condition of a rapid and correct response to the slightest instances of violations. A great deal depends upon how correctly and effectively the various types of legal responsibility (criminal, disciplinary, material, and civil law) are applied to violators of the law in the proper instances.

The basic direction in the work of the commanders, the political bodies and the military legal bodies in strengthening legality, as is required by the Communist Party, should be to prevent crimes and other violations of the law. The expedient execution of this work is impossible without a profound study of the causes of infractions of the law and the conditions contributing to their occurrence in the units and on the ships.

The constant strengthening of socialist legality and law and order is a natural and objective requirement of modern times and one of the important directions in the activities of the commanders and political workers of the Soviet Armed Forces.

Constant work in this direction will help to carry out the tasks posed by the 24th CPSU Congress for the Soviet Armed Forces. Here an enormous role will be played by the vital and creative implementation of Lenin's ideas concerning socialist legality.

CURRENT PROGRESS AND COSMIC RESEARCH

The 24th CPSU Congress specified the major areas of scientific and technological progress which are of primary significance for building the material foundation for Communism. One of these is the exploration and conquest of space. The Soviet Union, which ushered in the space age, very soon achieved substantial results in the conquest of space. Orbiting stations signal a new stage in the study of near-earth space and the other planets of the solar system. The editors of Voyennaya Mysl' have put to our cosmonauts a number of questions connected with the problems of the conquest of space.

Question: It is generally acknowledged today that it is feasible and expedient to handle the problems of communications, television, navigation, acquisition of data for weather and geodetic research as well as the exploration of other planets with the aid of automatic space vehicles. In your opinion, for what aims and what scientific and economic tasks can manned space vehicles and orbiting stations be employed?

Pilot-cosmonaut Maj Gen G. T. Beregovoy, Twice Hero of the Soviet Union, gave the following reply. Frequently one wonders whether there is justification for human participation in space research on board a spaceship or orbital station. Cannot the same results be obtained with automatic equipment? I must say that regardless of all the achievements of modern science of automatic control and remote control, the human brain is still the most reliable "device" for fast, logical situation analysis and decision-making during the course of an experiment, as well as conscious selection of objects of investigation.

No automatic machine can supplant man's diversified creative capabilities. But it substantially supplements man, constituting man's reliable assistant in investigating the unknown. During the course of investigations man can analyze obtained results, reach correct decisions in unforeseen situations, and actively intervene in studying the environment around us. Interplanetary spacecraft will carry autonomous navigation systems. But even here man's role will be extremely important. Cosmonauts will be required to determine orbital parameters, length of course-correcting burns, time of engine ignition, as well as solving other problems directly connected with the flight.

Only manned spacecraft and orbiting stations in combination with automatic vehicles will make it possible to raise space exploration to a higher level.

and offer the opportunity to obtain essential data for equipping expeditions to distant destinations in space.

Combined utilization of manned spacecraft, orbiting stations and automatic spacecraft can ensure performance of the following fundamental tasks.

In the area of physical and geophysical investigations. A permanent manned orbiting station can serve as an enormous physics laboratory in space. Such a laboratory, under high-vacuum conditions, permits most interesting investigations in the area of physics of elementary particles, cosmic rays, study of the nature of gravitation and discovery of gravity waves, plasma research, and experiments in magnetohydrodynamics, the study of electromagnetic fields in space, investigation of the magnetosphere and the earth's radiation belt, "solar wind," as well as other areas of space physics.

In the area of atmospheric research, hydrologic meteorological observations. One can hardly overemphasize the significance of observations from space of the state of the atmosphere, cloud and snow cover, the acquisition of information on the ice limits in the oceans and seas, on melting of glaciers, snowcap changes in mountain regions, spring freshets on rivers, and other natural phenomena. Space meteorology will make it possible substantially to improve weather forecasting, forecasting of floods and the ice situation at sea, and the onset of periods of rain and snow. Of considerable importance is prompt detection of incipient storm systems, hurricanes, and typhoons, as well as observations of their development and tracking of their movements, in order to prevent or reduce the consequences of these phenomena (for example, communicating to ships at sea the safest routes).

Totally new possibilities are opening up in the area of study of the earth's resources. Vast information on the nature of the earth's surface and even on shallow-lying bedrock is obtained by a study of the spectra of areas of the earth's surface in the ultraviolet, visible-light, infrared and microwave electromagnetic radiation bands. Analysis of photographs of sections of the earth's surface and radiation spectra enables us to obtain data on these areas which is extremely valuable from both a scientific and practical standpoint. Study of the ocean from the vantage point of orbiting stations and satellites is extremely promising. This applies in particular to study of thermal patterns, the acquisition of data on ocean currents, degree of water pollution, state of the sea, determination of concentrations of plankton and fish, iceberg patrol, and tsunami detection.

In the area of extraatmospheric astronomy and radio astronomy, investigations and observations on board manned and specialized unmanned orbiting stations are extremely promising. The fact is that the earth's atmosphere practically totally absorbs the higher-frequency electromagnetic radiations

in the visible-light band with a wavelength of less than 2000 Å, while the earth's ionosphere reflects radio-frequency radiations from space and from the sun across a wide band of frequencies. In addition, atmosphere fluctuation produces considerable interference. Therefore astronomical, astrophysical and radio astronomical observations from earth are less effective than from space.

Study of the X-ray, ultraviolet and corpuscular radiation of the sun and its corona will make it possible first and foremost to estimate more precisely the influence of solar activity on processes taking place on the earth and in the earth's atmosphere, and will enable us to make progress in predicting solar flares, which is extremely important in order to improve the safety of long manned space flights and protracted manned missions on board orbiting stations.

In the interest of biomedical research orbiting stations will present the opportunity to solve problems connected with prolonged manned missions in space, the role of gravity and the diurnal cycle in the development of life and the occurrence of vital processes in various organisms (from the simplest to such highly-organized systems as man), the effect of penetrating radiation and other types of cosmic radiation, etc. One cannot even consider extended manned missions to distant destinations in space without preliminary experimental testing of the effects of various conditions of space flight on man. Orbiting stations will offer the opportunity for such testing.

Conduct of scientific-technological and engineering experiments. Orbiting stations constitute an experimental base for developing and testing space hardware and systems. The high vacuum of space, unattainable on earth, and the effect of weightlessness present opportunities for the elaboration and realization on board orbiting stations of many sophisticated industrial processes (for example, for microelectronics, electron-beam technology, crystal growing, the production of ultrapure materials).

Finally, orbiting stations will evidently be employed as orbiting launching pads for interplanetary spaceships, as shipyard ways in space for the assembly of spacecraft, fueling and testing of all systems prior to departure on a distant voyage. They will also provide cosmonauts with practical training and "acclimation" prior to extended journeys in space.

I have enumerated in a very general way the tasks which can be performed by orbiting stations and automatic space vehicles in the interests of science and the economy, in the interest of speeding up the building of the material foundation for Communism.

Question: The increasing complexity of tasks performed by man in space and the greater time being spent by man under conditions of weightlessness impose great demands on a spaceship's life-support system. In connection with this, what new developments are occurring in efforts to solve this problem both in the Soviet Union and the United States?

Pilot-cosmonaut Maj Gen Avn V. A. Shatalov, Twice Hero of the Soviet Union, responded to this question.

The Vostok, Voskhod, and early Soyuz missions involved for the most part only automatic, pre-programmed control of life-support systems, aimed at creating the most favorable range of cabin microclimate parameter changes. Now the crew has much greater involvement in controlling these systems. In order to optimize control and operation, cosmonauts are more thoroughly briefed on system operations, which helps crew members quickly find and correct problems in spacecraft life-support systems.

Research being conducted in the Soviet Union on the effect of space flight factors on the human organism, and weightlessness in particular, has required the creation on board spacecraft of environment conditions as close as possible to conditions on earth.

During manned missions particular attention is devoted to removal from the cabin atmosphere of contaminants given off by materials and operating equipment, as well as forming as a result of vital activity. Spacecraft carry special installations for this purpose; measures are also provided for reducing bacterial contamination of the cabin environment. As we learn from the foreign press, American life-support systems for the Mercury, Gemini, and Apollo spacecraft were designed on the basis of optimal system weight and for extended activities in space suits with an overpressure of approximately 190 mm Hg for space walks and extravehicular activities on the moon's surface without preliminary nitrogen desaturation of the organism. The pure-oxygen atmosphere of these spacecraft, at a pressure of 0.35-0.39 atm, proved unacceptable for extended missions due to the toxic effect of pure oxygen. Therefore the planned Skylab orbiting station will have an oxygen-nitrogen atmosphere at a pressure of 0.35-0.42 atm, and an oxygen partial pressure of approximately 0.26 atm.

An increase in the duration of manned missions also required a number of measures to improve living-hygiene and sanitation conditions for crew members. Spacecraft crew members can now regularly wash and brush their teeth, shave, change underwear and bedding; today's spacecraft also offer improved conditions for crew member rest and recreation.

Further improvement is also being made in the system of removal and utilization of waste and products of crew member vital activity, the quantity of which increases with increasing mission duration. The problem of utilizing

waste is being worked on intensively both in this country and abroad, for solution to the problem will make it possible substantially to reduce the weight of supplies carried on a manned mission.

An extended period in a state of weightlessness leads to a substantial change in the functions of many organism systems, particularly the cardiovascular and skeletal-muscular systems. Muscles weaken and partially atrophy as a consequence of weightlessness and restricted motor activity, particularly those muscles which under terrestrial conditions oppose the forces of gravity; the cardiovascular system becomes deconditioned; there occurs change in coordination of movement in performing locomotor acts (walking, running). Groups of physical exercises are performed by crew members during a mission, employing resistance devices, in order to prevent these changes. A load suit with pull system, which simulated the load imposed by gravity along the body's longitudinal axis, was successfully tested for the first time on the Soyuz-9 mission. On-board training devices (unique "microgyms") for physical conditioning during a manned mission are being developed.

Question: Could you share your impressions on the adaptation and readaptation of the human organism during space missions, on the problem of daily regimen for the purpose of retaining cosmonaut work efficiency, as well as on the psychological aspect of a crew mission and the surmounting of stress situations which can occur at various times during a mission in space.

Pilot-cosmonaut Maj Gen Avn A. G. Nikolayev, Twice Hero of the Soviet Union, replied to this question.

In space a cosmonaut's organism is subjected to the effect of a number of factors which are unusual for terrestrial conditions: weightlessness, hypodynamia, the presence of a new and strange situation, enclosed space, high G-loads, noises, vibrations, etc. In such a situation functional changes occur in the human organism.

Soviet and American manned missions have shown that many functions and systems of the human organism adjust in a nonuniform manner in space. Some functions adjust rather quickly, while others are much slower. On the basis of cosmonaut subjective observations, total adaptation of the organism to the conditions of space is observed by the second or third day; objective data indicate that this adjustment occurs later. Adaptation time becomes shorter with subsequent space missions.

Space medicine is faced with critical problems connected with the return of cosmonauts to earth and their readaptation to terrestrial conditions following extended missions in space.

Experience indicates that following extended missions in space the process of readaptation is more difficult for the cosmonauts and is of greater duration, imposing certain stress on all regulatory mechanisms. In connection with this science is faced with the task of developing means and methods of providing rapid restoration of the functions of the cosmonaut's organism under terrestrial conditions.

In a space flight the human organism is also affected by the peculiarities of the work and rest regimen, closely linked with the daily activity cycle.

The necessity of employing during manned space missions a daily activity regimen which is different from that on earth is due to the nature of tasks performed, connected with number of orbital revolutions and time of day, orbit precession, as well as length of watch, adjusted to the cosmonaut's ability to perform work with a high degree of efficiency and reliability. The longer a mission runs, of course the greater the probability of utilizing two or more sleeping-waking regimens. For example, four regimens were employed on the Soyuz-9 mission, with a gradual shift of periods of sleeping and waking by 1.5 hours every 4-5 days (the migrating day variant).

Research conducted on the ground indicates that under conditions of this kind of alternation between sleeping and waking, a special state develops in the human organism ("desynchronosis"), characterized by disturbance in the activity of the majority of systems and diminished work capacity.

In our opinion the basic ways of avoiding unpleasant effects of extended conditions of altered diurnal regimens are the following: establishment of most efficient regimens of sleeping and waking; strict individualization of these regimens in conformity with the biorhythmologic peculiarities of each crew member; purposeful adjustment of the organism to a new diurnal regimen, etc.

Space flight constitutes a totally new type of operator activity, which imposes greater neuropsychic demands on the cosmonaut. We consider the following to be the most important psychological peculiarities of space flight: man's removal from the normal "earth environment"; the necessity of correct and quick evaluation of unexpected and totally new situations in space; the necessity of independent and precise performance of vitally important tasks in space; self-criticism in estimating one's own capabilities in various situations and in working as a team.

Each crew member should possess excellent psychological and morale-volitional qualities in order to achieve successful accomplishment of the tasks on a space mission. Strong, balanced nervous processes should be combined with a high degree of emotional stability in various situations,

highly-developed creative imagination, and good adaptability to new conditions of existence.

In cosmonaut practice these qualities are achieved by careful selection of candidates capable of handling the extreme factors involved in space flight; by a system of measures aimed at increasing the cosmonaut's resistance to the stress factors of space flight; by careful selection of mission crews, taking into consideration the psychological features of the specific individual and the compatibility of the team as a whole.

Experience shows that the employed practice of psychological selection of cosmonauts for a mission, as well as corresponding psychological training, fosters the development of essential habits and skills for activities in the stress situations of space flight.

Question: Some American astronauts have reported (according to the foreign press) that visual acuity improves in space. Have you noticed this phenomenon?

Physician-cosmonaut B. B. Yegorov, Hero of the Soviet Union, responded to this question.

Prior to the first manned space flight the assumption had been stated that the absence of gravity could alter the functional capabilities of the visual analyser. American experts noted that during flight on a Keplerian curve visual acuity was reduced an average of 6 percent. Soviet research in this area indicated that visual acuity deteriorated with the onset of weightlessness, while continuation in this state was accompanied in some individuals by restoration of or even improvement over the initial visual acuity level. Data obtained during brief states of weightlessness, however, could be viewed only as certain transitory values of this function, since the organism had not yet adapted to conditions of weightlessness.

Therefore further studies were conducted in space. Cosmonaut accounts of visual observation of the earth's surface and objects in space are of definite interest from the standpoint of determining the effect of protracted weightlessness on resolving power and other functions of vision.

Investigations have shown that visual acuity under conditions of orbital flight is superior to average standards, but this applies only to objects of linear extent. But visual acuity in regard to such objects is also better under terrestrial conditions. On the whole the functional capabilities of the visual analyser undergo comparatively minor changes during space flight.

Question: To what G-loads is a cosmonaut subjected and in what phase of a space flight are they at a maximum? Does the astronaut feel a

temperature increase in a descending spacecraft when the ablative layer begins to burn?

Pilot-cosmonaut Col A. V. Filipchenko, Hero of the Soviet Union, in replying to this question, emphasized that maximum G-loads on a spacecraft occur during the phase of ballistic entry into the dense layers of atmosphere. G-load values reach 8-10 during ballistic deceleration of a descending spacecraft in dense layers of atmosphere; in a controlled descent they are reduced to 3-4.

During atmosphere reentry cosmonauts feel practically no change in temperature in the descending spacecraft.

Question: In recent years the journal Voyennaya Mysl' has carried a number of articles on problems dealing with space*. What is your opinion on these articles, and what topics do you feel should be discussed in the future?

Pilot-cosmonaut Col G. S. Shonin, Hero of the Soviet Union, replied to this question.

In the period 1969-1971 Voyennaya Mysl' published materials dealing with the development, improvement and employment of spacecraft, for the most part automatic space vehicles. Utilization of manned spacecraft was discussed in only one article. The increasing complexity of the tasks of Soviet astronautics with the utilization of permanent manned stations places on the agenda new problems pertaining to training crews for missions in space.

It would therefore be desirable, in addition to examination of the problems of the development and utilization of space hardware, for the journal Voyennaya Mysl' to discuss as well problems pertaining to man's training for and participation in space research, experiments and test programs.

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From the editors: The editorial board and staff of the journal Voyennaya Mysl' should like to express their sincere thanks to our pilot-cosmonauts for their detailed replies to our questions; we wish them continued success in their noble labors for the benefit of all mankind.

* Voyennaya Mysl', No 3, 9, 1968; No 6, 1969; No 3, 8, 1970; No 4 et al, 1971.

After this article was ready for press, the Soyuz-11 spacecraft was launched, carrying the following crew: mission commander -- Lt Col G. T. Dobrovol'skiy; flight engineer -- pilot-cosmonaut Hero of the Soviet Union V. N. Volkov: test engineer -- V. I. Patsayev. The Soyuz-11 made a successful rendezvous with the Salyut station, which had been launched previously. The crew of the Soyuz-11 expertly docked the two spacecraft and boarded the orbiting station. Thus, as a result of successfully solving the difficult engineering problem of delivering a crew by transport spacecraft to an earth satellite scientific station, the Soviet Union had created the world's first manned orbiting space station.

The party and government highly praised the performance of these pioneers of space. In a message of greeting Comrades L. I. Brezhnev, N. V. Podgornyy, and A. N. Kosygin warmly congratulated the hero-cosmonauts on their safe arrival on board the Soviet orbiting scientific station and expressed confidence that they would honorably perform their responsible and difficult mission, which would constitute a major contribution to implementation of plans for the conquest of space for the benefit of the Soviet people and all mankind.

On 7 June the Soviet cosmonauts proceeded to carry out the specified program of experiments. Their tasks include: an orbiting station systems check; practice in methods and means of space station orientation and navigation; numerous investigations of the earth's surface and atmosphere in the interests of the economy; observation of processes in the atmosphere and space in various electromagnetic radiation bands; various biomedical experiments.

The content of the missions assigned the crew of this multiton orbiting scientific complex reflects the vast opportunities opened up to space science by the permanent orbiting scientific stations of the future.

The Directives of the 24th CPSU Congress call for a broad program of scientific research in space in the interest of development of communications, television, weather forecasting, study of earth resources, geographic studies and performance of other economic and scientific tasks. Soviet scientists, engineers, technicians, workers and cosmonauts are purposefully and persistently implementing this program.

THE DIALECTICS OF POSSIBILITY AND REALITY IN MILITARY AFFAIRS

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The present article discusses certain objective relationships reflected in the categories of "possibility" and "reality" in terms of military affairs. The author has followed Lenin's ideas that a Marxist in considering a particular moment should proceed not from the possible but rather from the real (V. I. Lenin, Complete Collected Works, Vol 31, p 135; Vol 49, p 348).

The Objective Relationships in Military Affairs as Reflected in the Categories of "Possibility" and "Reality"

The problem of possibility and reality has a long history, and in the approaches to solving it one can clearly trace a struggle between two directions, the materialistic and the idealistic. The materialists assert that the given categories reflect the relationship of objects and phenomena in the material world. The idealists reject their relationship to objective reality. We find a scientific resolution to the problem in the works of K. Marx, F. Engels and V. I. Lenin. They carefully studied reality and the possibilities existing in it and on the basis of the obtained conclusions worked out the strategy and tactics of the proletariat and its party.

The basis of the Marxist-Leninist teachings concerning possibility and reality is the dialectical materialistic approach to the latter. By reality the founders of Marxism-Leninism understood the material world in all its diversity, or the situation surrounding us. The category of "reality" can be used in the broad and narrow senses of the word. In the former instance, it reflects the entire material world and the entire diversity of objects and phenomena, and in the latter, a certain portion of the material world and a limited range of objects and phenomena. In military affairs, in the narrow sense of the word, reality is the situation under which battles and operations occur.

Reality has a multiplicity of properties. One of them is the possibility of the formation of a new reality. The development trend of reality and the prerequisites for the occurrence of new objects and phenomena are called possibility.

The dialectical process in the development of any phenomenon, including combat and an operation, consists in the infinite occurrence of possibilities in reality, and their conversion into a new reality with new

possibilities. All the presently existing achievements in military theory and practice previously existed in possibilities and at a certain stage they were converted into reality. In turn, modern reality has a multiplicity of possibilities.

Possibility arises due to the action of objective laws, and subsequently also exists in accord with completely definite patterns. However, in order that one or another military possibility, and in particular, the military might of a state, is ultimately turned into a completely definite and planned reality, that is, into a victory, the appropriate conditions of a political, economic, scientific-technical, purely military, and other character must be created. The problem is complicated by the fact that the path from the possibility of victory to a real victory is far from always straight and regular. The problem is that during the time required to realize possibilities, both opposing sides continuously correct their efforts in the interests of a constant change in their possibilities. As a consequence of this, most often, particularly in the process of armed combat, the complex path from possibility to ultimate reality contains a rather broad range of different intermediate real results.

The correct disclosure of the possibilities available to the opposing sides, the prompt and skillful realization of one's own possibilities for achieving the set military and political goals, that is, the effective and rapid conversion of them into reality in the form of the sustaining of a victory over the armed forces of one or another nation or coalition, have always attracted particular interest.

The determining of correct interaction between possibilities and reality is organically related to many problems of military political leadership which envisage the taking of optimum political and strategic decisions, the elaboration of real war plans, the efficient preparation of the armed forces, and the elaboration of effective ways for conducting a war. It is possible to determine the real possibilities of the sides and to skillfully plan their realization for achieving a real victory only on the basis of a scientifically elaborated methodology.

Soviet military science, in relying on the Marxist-Leninist methodology, has been able to work out a truly scientific system of views and to solve the problem of the interaction between possibility and reality. This was seen even during the years of the foreign military intervention and the Civil War. On the basis of analyzing the military-economic and moral-psychological possibilities of the young Soviet republic and the forces of the internal and external counterrevolution, our military political leadership at each stage worked out real and effective strategic plans. The country of Soviets achieved a complete military victory, having checked all of the adventuristic plans of the foreign and domestic enemies who overestimated their own possibilities.

During the Great Patriotic War the Soviet military and political leadership and the higher military personnel showed a great ability to determine possibilities and to forecast the most real results of the war, campaigns, engagements and operations. The victorious conclusion of the major engagements in the war is a vivid affirmation of this. In turn, the Nazi military and political leadership was inept in evaluating the overall situation and made flagrant mistakes in determining the real military-economic and moral-political possibilities of Nazi Germany and the Soviet Union. The result of this was an unrealistic war plan, adventuristic strategy, and catastrophic defeats in a majority of the campaigns and engagements. A complete defeat and unconditional surrender were the results of the war for the Nazis.

History is rich in examples of how the political and military leaders of bourgeois states have made serious errors above all in assessing real possibilities, be they their own or of the enemy.

Under today's conditions the problem of the interaction of possibility and reality in military affairs has acquired even greater acuteness and timeliness and has become broader scaled since major military political coalitions have formed in the world. On the one hand, there are the aggressive imperialist bloc of NATO and other blocs, and on the other, the defensive alliance of the socialist states in the form of the Warsaw Pact. Consequently, the problem of a possible victory in war at present is viewed within the framework of the large military coalitions. Due to the appearance of nuclear weapons and rapid military technical progress, the problem has become even more complex and diverse. All of this necessitates a continuation of constant research on the problem of possibility and reality in military affairs.

In contrast to the bourgeois politicians and military leaders, our party and military personnel solve this problem on a scientific basis. In strengthening the defense might of the Soviet Union and the socialist nations and in carrying out the military tasks, the Communist Party always proceeds from reality. This reality consists in the fact that our mighty state is able to provide its armed forces with the most advanced military equipment and staff them with personnel possessing high moral and military qualities. Socialism has demonstrated its great transforming strength and superiority over capitalism for the whole world.

The possibilities residing in socialist reality to strengthen the military might of the nation reflect one of the most important aspects in the action of such an objective law of socialism as the law of the planned and proportional development of the national economy. The latter provides the CPSU Central Committee and the Soviet Government with an opportunity to regulate arms production in a centralized manner, to develop all types of armed forces harmoniously and in the necessary amount, and to make complete use of the most recent scientific and technical achievements.

However, in any social phenomenon, including military affairs, possibilities are realized only as a result of the practical activity of people. Here people consider not only one or another possibility, but also the degree of its maturity. Possibility, as a property of reality, is constantly changing, for the very reality itself is constantly changing. Moreover, in its development possibility approaches a new reality or an impossibility and at each stage is characterized by a certain maturity which is reflected in the category of "probability." Probability characterizes the relationship of realized possibilities to their total number, and the measure of the necessary in possibility. The category of "probability" reflects objective processes of the material world which can be recognized with a high mathematical accuracy.

Modern mathematical probability theory which studies the patterns of repeating phenomena in mass events is actively used in military affairs. It is irreplaceable in studying the process of converting possibility into reality. Large masses of personnel are involved in battles and operations, weapons and military equipment are widely used, a great deal of ammunition, food, fuel, lubricants and other materials are consumed, and the possible consumption of these can be determined using probability theory. This theory also serves as the basis for the development of game theory which makes it possible to find the optimum solution in such a conflict situation as armed combat, as well as in queueing theory by which the necessary quantity of service installations and enterprises is determined for the complete and effective satisfying of the needs of the troops and for carrying out the combat missions. The probability approach is also widely used in retrieval theory, distribution theory, and elsewhere.

Mathematical theories in modern armed combat help the commanders in effectively studying reality and real possibilities. Specialists in the area of mathematics have shown that with the aid of mathematical methods it is possible: 1) to determine quickly and rather accurately the expected results from using the available forces and means; 2) to determine how many forces and means are needed for carrying out the mission considering the resistance of the enemy; 3) what variation for using the forces and means is the optimum one.[1]

In considering the important role of mathematical methods in the practical activities of the commanders, their mathematical preparation must be improved. For this purpose, in the military command schools and academies, in studying the course of higher mathematics, obviously it would be advisable to concentrate basic attention not upon classic mathematics, but rather on those theories which will help the commanders to quickly and

1. See I. Anureyev and A. Tatarchenko, Primeneniye matematicheskikh metodov v voyennom dele (The Use of Mathematical Methods in Military Affairs), Voyenizdat, 1967, p 7.

effectively judge the situation, as well as the possibilities for carrying out the set mission, and to take the optimum decisions. The reader is expecting from the military mathematicians new books and articles which show the use of mathematical methods in military affairs.

In assessing possibility using the category of "probability" two extremes are dangerous and which, in studying the processes of armed combat, can lead to false conclusions and erroneous decisions. These mistakes can occur both in absolutizing the mathematical methods as well as in underestimating them. The absolutizing of the mathematical aspect or the desire to reduce everything to figures leads to a narrow empirical and distorted understanding of reality. In armed combat it is very important to judge the possibility of victory in terms of the quantitative balance of forces, but it is equally important to consider the combat morale qualities of the men, and these are harder to describe mathematically. At the same time, under modern conditions it is impossible to correctly judge a situation without a quantitative analysis of the available forces and means and without mathematical methods. In evaluating possibility it is important to consider both the quantitative and the qualitative aspects.

The variability of possibilities is also reflected in the dividing of them into abstract and real, and these may also be characterized by probability. An abstract possibility is one which has an insignificant probability of realization. A real possibility is close to being turned into reality, that is, it has a great probability of realization. In armed combat, people, as a rule, follow real possibilities. But, certainly, it is also essential to consider the abstract ones.

Thus, the categories of "possibility" and "reality" reflect objective relationships which can be understood with great precision. Military theoreticians and practical workers not only examine the given relationships, but also have an active influence upon the process of turning possibility into reality; they not only study reality, but also consciously change it.

The Effect of the Conscious Activity of People on Raising the Possibility of Victory in Armed Combat

The turning of possibility into reality in military actions is characterized by a unity of two factors -- objective and subjective. The objectiveness of a process consists in the fact that it occurs in the objects and phenomena of the material world, and occurs according to objective laws. The subjectivity is in the fact that the realization of possibilities is carried out through the conscious activity of people who are struggling for certain interests. In the given article we will not

examine the relationship of the subjective and objective factors since it has been analyzed in rather great detail.[2]

However, in studying the conscious activity of military personnel in turning possibility into reality, it is essential at least generally to analyze the content and direction of conscious activity and its dependency upon objective factors.

The creative activity of military personnel directed at turning possibility into reality is determined by the objective laws of nature and society, as well as by the laws and patterns of warfare. A knowledge of the objective laws and the military situation makes it possible for the military command beforehand to assess correctly reality, the possibility of victory, or the probability of a certain event occurring and, depending upon this, to make the correct decision, to set feasible missions for the troops, to promptly parry the countermeasures of the enemy, that is, to have an effective influence upon the objective process of the conversion of possibility into reality.

Military researchers and practical workers, in relying on the law which expresses the dependency of military actions upon political and economic conditions and in utilizing the method of Marxist-Leninist dialectics and its logic, can with sufficient reliability determine the character of future armed combat. Precisely on the basis of objective laws our military science has concluded that an armed conflict between the two opposing systems, if the imperialists instigate it, will assume an exceptionally decisive and uncompromising character. The just political goals to be achieved in the war by the socialist armies will help to manifest the highest morale of the men of these armies, and this will sharply increase their possibilities for achieving victory. The Great Patriotic War of the Soviet people against the Nazi invaders shows the decisive character of the armed clash between the opposing social systems.

Victory in war depends upon the balance of forces. This is a law. But the balance of forces of the warring sides constantly changes in quantitative and qualitative terms, and the possibilities also change. Under today's conditions the side which has even a significant superiority in manpower and equipment can lose it very rapidly. The surprise use of nuclear weapons is able to sharply alter the possibilities of the sides and, consequently, make victory closer or remote. This new pattern of nuclear war has been considered by Soviet military doctrine both in the organization and equipping of the Armed Forces as well as in preparing them for conducting combat.

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2. See, for example, Voyennaya Mysl', 1970, No 6.

The conversion of possibility into reality is also expressed in the dependency of the methods of combat upon the properties of the weapons and the preparation of the soldiers. This law was discovered and formulated by F. Engels (see K. Marx and F. Engels, Works, Vol 20, p 171). In considering the given law the commanders can determine the possible methods of combat and, in accord with them, prepare the troops for the armed defense of socialism.

Thus, the conscious activity of the personnel to turn possibility into reality is based upon objective laws. However, this does not exhaust all the characteristics of conscious activity. The direction of the latter is determined by class interests. Political interest and belief in the rightness of that cause for which the soldiers are fighting make their actions purposeful and help them to endure all the difficulties and not to fear death.

The role of the political awareness of the soldiers in achieving victory has constantly grown. This was repeatedly pointed out by V. I. Lenin. He wrote that "victory ultimately is determined by the morale of those masses who are shedding their blood on the battlefield" (Complete Collected Works, Vol 41, p 121). Precisely this notion explains those numerous historical examples when even the numerous and technically well armed armies of reactionary regimes have been defeated in battle against revolutionary troops which are insufficiently armed, but are strong in morale and political awareness. The CPSU has given great attention to military patriotic work and to instilling in the Soviet people high awareness as well as feelings of patriotism, socialist internationalism and hate for the enemies of socialism.

The conscious activity of military personnel to turn the possibility of victory into reality has its specific features which are characterized by the following traits: a) the turning of possibility into reality in battles and operations entails mass human sacrifices and this influences the actions of the troops; b) armed combat is characterized by dynamism, by rapid changes in the situation and, consequently, by the rapid changes of possibilities. Any interval of time (hour, day or month) during a period of war is significantly fuller in events than the same interval in peacetime; c) the possibilities of victory are created before the start of the war and during it, and are realized in the course of battles and operations. This means that victory can be achieved, as a rule, in the course of the combat, but this victory is prepared for beforehand; d) the theoretical conclusions on the possible methods of future combat to a certain degree are a priori, they cannot be fully tested out in peacetime and have a probability character.

The specific features of military affairs also influence the process of understanding possibility and reality in them. In peacetime it is

impossible to check out with absolute accuracy all the processes of combat and to play through them as an all-round experiment. Nevertheless, it is extremely essential to study the possible nature of combat in a future war and the probable effectiveness of modern weapons. Modern science, in using various methods, can predict future processes with great accuracy. A special role is played by the modeling method in solving this problem.

Modeling, as a method for understanding military affairs using models, has been widely employed in studying the process of converting possibility into reality in virtually all types of combat activity of the armed forces. It makes it possible to examine the possible variations of military actions in the shortest time, to select the most effective of them, and to take measures for raising the possibility of victory.

Regardless of the very great and ever growing significance of modeling, it must be pointed out that the data obtained by using it are still of a probability sort rather than a dependability.

Thus, in one of the types of modeling, in exercises and maneuvers, even those as close as possible to actual combat, inevitably there are certain simulated conditions. For example, there is the absence of the enemy's firing on the troops being trained, and this tells both on their actions as well as on determining the probable effectiveness of new types of weapons and methods of combat. There are also other simulated conditions. Nevertheless, it is essential to study the probable effectiveness of troop actions. And more accurate and scientifically sound prediction of the effective use of new means and methods of combat depends upon the complete conformity of the experiment's conditions to the combat situation. The more these conditions conform to a future combat situation, the more accurately it is possible to determine the probable effectiveness of the employed weapons and methods of conducting combat and the less one can fear unforeseen events. Instructive and very valuable in this regard were the recent exercises and maneuvers such as Dnepr, Dvina, Vltava, and Okean [Ocean].

In military affairs the conscious effect of people on turning possibility into reality involves scientific forecasting. And it is not only involved, but even impossible without it. The opposing sides make their plans, determine the goals, and act in accord with them depending upon the expected outcome of the battle or operation and upon the realization of one or another possibility. Forecasting, in essence, is an awareness of possibilities, and the dialectics of turning possibility into reality is the basis of scientific forecasting. The possibilities in armed combat which reflect objective development laws at the same time characterize the future of reality and the probable outcome of the battles and operations.

Since scientific forecasting entails an awareness of possibilities, the role of which is far from the same in the outcome of the battles and operations, of particular importance for theory and practice is the consideration of the hierarchy of possibilities, or that influence which each possibility has on the outcome of armed combat.

In the overall picture of a battle or operation, there are numerous particular elements, objects and phenomena which are characterized by their own possibilities and by the particular role which they play in the outcome of a battle or operation. Forecasting presupposes a consideration of all possibilities, but the attitude toward them is far from the same. Of the enormous number of possibilities, of greatest interest are the possibilities of friendly troops, of enemy troops, and of the intended outcome of the battle or operation. All the remaining ones are summed up in these possibilities and without considering them it is impossible beforehand to correctly assess the outcome of a battle or organize one's activities.

The conscious activity of military personnel placed upon scientific forecasting also presupposes a sequence in realizing possibilities. For example, in an offensive this is concretized in the sequential execution of the immediate and subsequent missions. And the realization of each possibility is a contribution to the overall victory.

The hierarchy of possibilities is also reflected in the structure of the troop formations. The possibilities of the subunit or unit are not equal to the simple total of the possibilities of each serviceman. The troop subunit, unit, or combined unit is a qualitatively new phenomenon. In determining the possibilities of the troop organism one should consider not only the possibilities which are inherent to the elements or its components, but also other factors such as organization, coordination, discipline, and so forth.

Unrealized possibilities are the enemy of scientific forecasting. In battles and operations their realization occurs in the form of unforeseen accidents, for example, the underestimation of the enemy's possibilities, his ability to use nuclear weapons, the consequences of weather conditions, and so forth, as consideration of them can influence the course or outcome of a battle or operation.

The Particular Role of Commanders in Raising the Possibility of Victory and Turning It Into Reality

The success of battles and operations depends upon each man. But the commander holds a special place in turning possibility into reality in military affairs.

Armed combat is a complex and contradictory process. All the actions of its participants which are directed at raising the possibility of victory and turning this possibility into reality are coordinated by the commanders. Precisely the commanders and their staffs in a conscious and purposeful manner prepare the troops for battles and operations. They control the troops, that is, direct the conscious activity of the men to turn the possibility of victory into reality.

All the activities of the commander in this process can be described as cognitive and organizational, for he examines reality (the combat situation), the possibility of victory, and the methods for realizing this possibility, and directs (organizes) the efforts of his subordinate troops toward achieving victory. The commander, on the one hand, acts as a researcher, and on the other, as the organizer of the battle (operation). The organizing and cognitive activities of the commander include an assessment of the situation, decision making, and the organization of the fulfillment of this decision.

The assessment of the situation is a cognitive activity aimed at studying objective reality, the possibilities of victory, and an examination of the methods for achieving it. In the process of assessing the situation, the commander receives extensive information which must be processed in a short period of time. The improvements in the methods of assessing the situation at present are being carried out by the use of mathematical methods and the broad introduction of automation.

The conclusions obtained as a result of assessing the situation are the basis for the commander's decision for a battle or an operation and this decision represents a unique creative act. In a decision, on the basis of considering objective reality, the missions are defined which, in the commander's opinion, should be carried out in order to turn the possibility of victory into reality, and the direction is determined for the practical activities of the men to achieve victory. Aside from the quantity of forces and means, the possibility of victory depends upon the effectiveness of their use, upon the combat (operational) formation of the troops, and upon the coordination of their actions in terms of the goal, place and time. The enemy can be conquered with fewer forces if they are skillfully used. For this reason the demands placed upon the commander's decision are very great. For improving the decision making methods, in all probability, it is valid to establish "decision-making theory" among the military disciplines. This discipline can include decision-making methods, a study of the ways for resolving a conflict situation, the processing of information received at the staff, as well as an evaluation of effectiveness criteria.

The culmination in the work done by the commander to turn possibility into reality is the able mobilization of the personnel to carry out the taken

decision, and the leadership over the combat of the troops. Since the troop organism which the commander controls is a complex system consisting of a multiplicity of components, and each of them has a certain load, then the purpose of scientific troop leadership is to efficiently use all the components of the system (manpower, equipment, the subunits, units and combined units), to coordinate their actions, and to respond promptly to all changes in the situation. Great attention is being given to working out the scientific principles of troop control.

Ways to Optimize the Creative Activity of People Aimed at Raising the Possibility of Victory

In turning to the problem of possibility and reality, V. I. Lenin pointed out that "any engagement includes the abstract possibility of defeat, and there is no other means for reducing this possibility than the organized preparation for the engagement" (Complete Collected Works, Vol 6, p 137). The preparation of the men, the units and the combined units for military actions is very diverse. It involves all aspects of army life including: indoctrination and training, the organizational structure, the command personnel, weapons, material-technical supply, and all of this influences the possibility of victory. However, the conscious activity of the men in armed combat and its effect on the process of turning possibility into reality depend primarily upon their political, moral and combat training.

The moral-political training of the men has been at the center of attention of the political and military leaders. The CPSU has given unflagging attention to this question. High morale makes the deeds of the soldiers purposeful, it increases their strengths, and this raises the probability of victory.

An important aspect which influences the conscious actions of the men and, consequently, the possibility of victory, is the military (special) training of the personnel. Whereas ideological conviction determines the attitude of the men to the goals of the war, military (special) training predetermines the methods for achieving these goals. A knowledge of modern weapons, equipment and combat methods makes the actions of the men rational and effective. The higher the skill of a rifleman, artilleryman, missileman, pilot, signalman, or tank driver, the greater the skills of the subunit, unit, or combined unit, the greater the probability is of achieving success in battle.

However, the possibility of victory in a modern war depends not only upon the men fighting, but also on the civilian population. For raising the probability of victory in a war there must also be the corresponding preparation of the civilians. Certainly, the preparation of the civilian population is carried out with less intensity than the training of military

personnel, but it is also essential. The party, state and public organizations are constantly working on this problem.

The maturing of a possibility and its conversion into reality are a sequential dialectical process occurring over time. In actuality, a number of outstanding victories by our army preceded the victorious conclusion of the Great Patriotic War. These successes were necessary stages in achieving general victory. The defeat of Nazi Germany led to a significant strengthening of the positions of socialism, it became a world system and created new possibilities for further economic and scientific development and for strengthening defense might. By their labor the Soviet people turned these possibilities into a reality.

The time factor shows that the objective process of turning possibility into reality has a definite duration. While in all previous wars the major strategic goals were achieved by the sequential carrying out of tactical and operational missions, modern nuclear weapons and delivery systems make it possible to achieve these goals immediately. One of the most important features of modern warfare is the rapidity of events. The time for converting possibility into reality is significantly reduced, and this places particular demands upon the Armed Forces and makes constant combat readiness necessary.

Since the process of converting possibility into reality is a continuous one, there can be no interruptions nor abatement in preparing for the armed defense of the homeland.

The CPSU and its Central Committee provide us with examples of a skillful assessment of reality and existing possibilities. The party has always posed real tasks and has achieved their fulfillment. Clear proof of this are the five-year plans, including the new one. No one would doubt that it, like the preceding ones, will be fulfilled and that our Armed Forces will dependably defend the peaceful labor of the Soviet people. In turn, the successful fulfillment of the tasks of the five-year plan will significantly raise the capabilities of our Army and Navy in the area of the armed defense of the homeland.

DIPLOMACY AND MILITARY STRATEGY*

Docent V. Dmitriyev

The terms "diplomacy" and "military strategy" encompass such different aspects of a nation's affairs that at first glance it would seem difficult to speak of interrelations and mutual complementation. But only at first glance. Although there exists a saying that when cannon speak diplomats fall silent, a scientific approach to a study of diplomatic activity and military strategy reveals in them many common features and points of contact, and leads to the conclusion that success in one area can create the preconditions for success in the other, and vice versa.

First of all we should note that both diplomacy and strategy are included in the broader concept of *state policy* and as such are subordinate to it, are concrete forms of its manifestations. According to Lenin's definition, politics is the "direction of the state, a determination of the forms, tasks, and content of the state's activities..." (Poln. Sobr. Soch. [Complete Works], Volume 33, page 340).

Politics encompasses the most varied aspects of a state's activities, the entire complex of phenomena, processes and institutions which comprise its content. Policy is subdivided into internal and external, depending on direction. In this connection we see the first common feature linking diplomacy and strategy -- they constitute manifestations, means of policy. Since domestic policy is of primary significance for every societal system, *both diplomacy and military strategy constitute a continuation of the state's internal policy*, are organically linked with it and pursue aims of support and strengthening of the given social system, seeking consolidation of the position of the given state within the system of states.

At one time foreign policy was concentrated primarily in relations with neighboring countries, but as means of transportation, communication, as well as means and potential for waging warfare developed, foreign policy grew to encompass practically all the countries of the world, regardless of their remoteness from a nation's borders. Such a situation prevailed in the first and particularly distinctly in the latter half of the 20th century, when international relations and diplomacy have become in

* This article is a continuation of a discussion of the problems of military strategy. See the articles "Politics and Military Strategy" (Voyennaya Mysl', No 7, 1970) and "Military Strategy and Economics" (Voyennaya Mysl', No 4, 1971).

fact worldwide and all-encompassing, while military strategy, at least for the major powers, has become *global strategy*.

What is diplomacy? As the Diplomatic Dictionary defines, "diplomacy is the official activity of the heads of states, governments and special foreign relations entities, pursued for the purpose of carrying out a state's foreign policy aims, dictated by the interests of the ruling class, as well as in defense of the rights and interests of the state beyond its borders, by means of negotiations, correspondence and other peaceful means."[1] As is evident from the definition, diplomacy is one of the principal means of carrying out a nation's foreign policy activities with the aid of peaceful forms and methods. Herein lies its basic distinction from military strategy.

Constituting a continuation of a nation's domestic policy in the area of relations with other countries, *diplomacy and strategy inevitably are of a clearly-expressed class character*. The foreign policy of the imperialist states reflects the interests of monopoly capital and aims at subjugating other states in a political, economic, and military respect. On the other hand, the foreign policy aims of nations with a socialist societal structure are aimed at maintaining good-neighbor relations with all sovereign states and are based on mutual respect for territorial integrity, peaceful coexistence and the right of peoples to self-determination.

In bourgeois literature there exist various points of view on the content of the term diplomacy. Many authors consider diplomacy to be the science of foreign relations and the art of negotiation. Others view it only as a special form of primarily official relations between states. Still others define diplomacy simply as the "art of negotiation."[2]

As for specific diplomatic activity, a diplomat's job, as is stressed by professional French diplomat [Zh. Sh. Serre], consists in "observing events taking place in the country to which he is accredited, in order that his government can correctly determine the situation in that country and determine its actions correspondingly. He should explain and publicize the policies of his government and endeavor to implement its views by means of negotiations, conforming the rights of the nation he represents with the demands of the local situation...," refraining thereby "from any interference in domestic politics or government...; in short avoiding anything which could cause detriment to the country whose hospitality he enjoys."[3]

One readily notes in this definition two important elements which characterize the link between diplomacy and strategy and the radical difference in their methods. In the first place diplomatic representations, located in the country to which they are accredited, serve as

one of the principal means of obtaining the most complete information on the domestic political and economic situation and make it possible to keep an eye on the slightest fluctuations in public opinion and moods, to note all signs of friendly (or hostile) feelings in various strata of society, which enables the government of the country which has sent them immediately to take all these changes into account in its foreign (and, if necessary, domestic) policy.

In the second place it is important to note that diplomacy is not satisfied with the routine role of passive recorder of events. It constitutes an active implementer of foreign policy by means of publicizing that policy within the accrediting country with the aid of permissible and acknowledged methods. This is particularly important for diplomacy of the new type, such as the diplomacy of the socialist nations, which is directed not only *at governments but also at the peoples of all nations*.

After the victorious Great October Socialist Revolution V. I. Lenin, leader of the world's first worker and peasant state, declared that Russia's foreign policy aims were to strive for peace among nations, renunciation of seizure of foreign soil, and coexistence of states with different social systems. The first Soviet diplomat received instructions from Lenin personally to apply these principles of Soviet foreign policy. Lenin stated: "We promise the workers and peasants to do everything possible for peace, and we shall do so" (Poln. Sobr. Soch., Volume 36, page 343).

Pursuing a policy of peaceful coexistence and development of economic relations with capitalist countries, Lenin emphasized time and again the need for nonmilitary, economic competition between nations with different political systems. At the same time the leader of the proletarian revolution did not forget for a single moment the danger of military attack by the imperialist powers, which threatened the world's first socialist state. The role of diplomacy was very great in this respect: it required the ability to avoid giving the imperialist nations the opportunity to create a united front against the Soviet state, to make use of every opportunity, even the slightest conflicts between them, to attract them to the side of the Soviet Union by the advantages of economic ties or to ensure their neutrality in potential conflicts.

Nor did Lenin forget another aspect -- strengthening of the military might of the Soviet Union. "...Standing against an enormous front of the imperialist powers," he stated in 1920, "we, who are struggling against imperialism, constitute a union which demands *close military unity* (our italics -- V. D.), and we view all attempts to disrupt this unity as absolutely intolerable, as betrayal of the interests of the struggle against international imperialism" (Poln. Sobr. Soch., Volume 40, pp 98-99).

During the period of civil war and military intervention in Russia by the imperialist powers, the diplomacy of the young republic was unable to carry out a number of missions, by dint of the simple fact that the capitalist nations refused to accept representatives of the revolutionary government, refusing to recognize their credentials, and sometimes, as occurred in Iran, for example, the local authorities made no effort to prevent White Guardists from attacking and murdering them. In spite of the fact that the White Guardist armies and interventionist troops were defeated, the threat of aggression against the Soviet state remained. Lenin appealed to party and people to strengthen the might of the Red Army.

Its organizational development required a long period of careful, painstaking effort to train cadres, to effect their ideological indoctrination, to create an economy capable of producing modern arms, and to achieve thorough planning in order to ensure defense of the socialist homeland. Successful solution of this problem depended in large measure on the results of foreign policy: diplomacy had the job of ensuring a period of peaceful construction by peaceful means. As we know, Soviet diplomacy succeeded in this task.

In its foreign policy activities the party was always guided by Lenin's statement that diplomacy and military strategy are correct, powerful and produce positive results only when they are closely interlinked in direction, content, ultimate missions and goals.

Through his practical actions as head of state in revolutionary Russia, Lenin provided vivid examples of the ability to combine diplomatic and military means in foreign policy. Insisting on the necessity of the Treaty of Brest-Litovsk, which was extremely disadvantageous and humiliating to Russia, he explained the importance of preserving the main thing -- the conquests of the socialist revolution, from armed German imperialism. When Trotsky, who occupied the post of People's Commissar of Foreign Affairs at the time, stated during the Brest talks the formula "neither peace nor war," which was just what the Germans wanted and enabled them to resume military operations, Lenin called this out-and-out betrayal of the interests of the Soviet government. He succeeded in convincing the members of the Council of People's Commissars and the delegates to the 4th Congress of Soviets that such a treaty was essential for Russia, since it would give us a breather for restoration of the economy and peacetime construction. As history has shown, Lenin was right: 8 months later a revolution broke out in Germany, and the extortionate Treaty of Brest-Litovsk was repudiated. It is important, however, to emphasize that Trotsky's leftist position and phraseology cost revolutionary Russia much more dearly than had been envisaged by the original terms of the treaty. A discrepancy between political

actions and the country's military capability was manifested here in the most clear-cut form.

As an example of flexibility of Soviet foreign policy and diplomacy one can give the steps taken by the Soviet government in the years preceding the attack on the Soviet Union by Nazi Germany. At that time a situation had formed in Europe where a possible deal could be made between the Anglo-French leaders and Nazi Germany at the expense of the USSR. The Western powers were endeavoring to focus aggression against the Soviet Union. It took a good deal of courage to explain to the peoples of the Soviet Union and the entire world why the USSR should conclude a nonaggression pact with such a country as Nazi Germany, which in 1939 had demonstrated itself to be an aggressive imperialist power, having occupied Austria and Czechoslovakia by that time, as well as having initiated and provoked conflicts with Poland.

The French and British governments, while urging unification of all peace-loving nations in Europe, in actual fact were not inclined to conclude effective agreements on defense against the aggressor if the USSR were to be a participating signatory. It is typical that on the eve of talks with the Soviet government on possible joint measures against the aggressor, British Prime Minister Neville Chamberlain announced in the House of Commons that His Majesty's Government did not intend to enter into any alliances with countries possessing "a specific internal regime," by which he meant the socialist system in the USSR.

Talks which ran from March-August 1939 between the Soviet and British governments produced no positive results. It became obvious during the course of the talks that the British representatives were not even empowered to conclude political or military agreements. The impression was created which, as later became known, reflected the actual state of affairs, that the governments of Great Britain and France were merely attempting to delay, in order to reach an agreement with Germany behind the Soviet Union's back and to divert aggression eastward, against the USSR, securing guarantees against attack in the West. Even certain Western politicians realized this and criticized the British and French governments. Lloyd George in particular, quoted in the French press, declared on 26 May 1939 that "Neville Chamberlain, Lord Halifax and John Simon do not wish an agreement with Russia."[4] Winston Churchill, who never did like our country, pointed to the danger of the aggressiveness of Nazi Germany to hundreds of millions of persons and wrote that the USSR constituted a powerful restraining factor against potential aggression. "We," he stated, "are perhaps not yet capable of weighing and realizing the entire strength and might of the Soviet Union; but there is no doubt whatsoever that the USSR is an enormous nation which has steadfastly pursued a policy of peace."[5]

But our proposals dealing with effective utilization of armed forces and their joint actions against the aggressor, which required in particular the stationing of Soviet troops on Polish territory, received outright rejection by the French and British governments, thus confirming their disinclination to cooperate with the USSR in order to preserve the peace and organize resistance to the aggressor.

Documents of the British Foreign Office, recently made public, show that the British government, at the time it was engaged in talks in Moscow, was making preparations for a sneak attack on major industrial targets in the USSR. In particular, an operation had been drawn up for the destruction of Baku and adjacent oil fields with massed air attacks. The objective of the operation was to put the major Soviet oil-producing region out of commission and to undermine Soviet defense strength prior to initiating more extensive military operations against our country.

The policy of "appeasement" pursued by the "Western democracies" thus boiled down to lulling the vigilance of the Soviet people with distracting diplomatic actions and attempts to resolve interimperialist conflicts at the expense of the USSR. Today, in retrospect, the interconnection between imperialist military strategy and diplomacy, its anti-Soviet direction, has become even more obvious.

At the time, however, many were unaware of the complex diplomatic game being played by the governments of the Western powers. U.S. Ambassador to Germany Dodd wrote in his diary that "Hitler and Mussolini are counting on people's fear of another war, so that by intimidating the other countries, they can seize whatever they like. I fear that their estimate is a correct one." He concluded: "...It seems to me that under these conditions genuine cooperation between the United States, Britain, France and Russia is the only way to preserve world peace."[6] A historian rather than a professional diplomat, Dodd failed to comprehend that the last thing the imperialist governments wanted was to cooperate with Soviet Russia and that Britain was agreeable to Germany's seizure of vast territories in Eastern Europe on the condition that these two powers would "establish close economic and political relations and would dominate the world."[7]

Realizing these facts, the Soviet government and Soviet diplomacy took an important step -- they agreed to a German proposal of a nonaggression treaty. The attempts by the imperialists to put together a united anti-Soviet Front had failed. This was not only an important victory for Soviet diplomacy but also a great strategic success, since it secured for our country peace for almost 2 years and enabled us to strengthen our nation's defense.

Soviet diplomacy has demonstrated to the world time and again that it is an effective instrument of the Soviet policy of peace, recognition of the sovereignty of great and small peoples and the struggle of small nations against enslavement by larger nations. This is a diplomacy not of words and equivocal promises which can be interpreted differently to suit the moment, but rather implementation of the principle of proletarian internationalism in deed, a clear-cut policy of maintenance of good-neighbor relations with all nations desiring to live in peace. Herein lies one more guarantee of success for Soviet diplomatic activity. Direct appeal to the peoples, the toiler masses of all nations has been, is now and will continue to be a constant source of strength for Soviet diplomacy.

We can state in connection with this that proletarian internationalism and coincidence of the interests and goals of the toilers of the entire world constitute a powerful factor in support of the Soviet Union (and today of the entire socialist commonwealth), which *has always been taken into consideration by Soviet military strategy and has been utilized by Soviet diplomacy*.

At the height of the Civil War and foreign intervention in Russia, when the Entente powers were endeavoring to put together a bloc of large and small nations for the purpose of strangling the revolution with a joint effort, the Soviet government took vigorous steps to neutralize Russia's smaller neighbors, so-called "limitrophe" states. The vigorous efforts of the Entente to draw the "limitrophes" into participation in the intervention against Soviet Russia did not succeed.

Analyzing this success and appraising the foreign policy of the Soviet state, Lenin stated: "If all these little countries had moved against us -- and they were given hundreds of millions of dollars, the finest arms, as well as combat-experienced British military instructors -- if they had gone against us there is not the slightest doubt that we would have been defeated. Everybody understands this full well. But they did not go against us, because they recognized that the Bolsheviks are more honest. When the Bolsheviks say that they recognize the independence of every people, that Tsarist Russia was built on the oppression of other peoples and the Bolsheviks never stood for this policy, do not stand for it now and never will, that the Bolsheviks will never go to war for the purpose of oppression -- when they say these things, they are believed...

"Herein lies the international significance of Bolshevik policy. This was a test not on Russian soil but abroad. This was a test of fire and sword, not words. This was a test in a final, decisive struggle.

The imperialists understood that their soldiers were not enough, that Bolshevism could be crushed only by gathering together international forces, and yet all these international forces were beaten" (Poln. Sobr. Soch., Volume 40, pp 175-176).

Military strategy, just as military science as a whole, is strong and correct only when it is built on careful consideration of all objective factors, in strict conformity with the tasks and capabilities of a state's foreign and domestic policy. Disregard of objective laws or underestimation of important factors as a rule lead to setbacks of a military-political nature. Although diplomacy as a means of foreign policy usually comes to one's assistance in such cases, it is not always able completely to neutralize the consequences of military-strategic miscalculations. The strategic offensive on Warsaw in 1920 in particular was executed without sufficiently comprehensive consideration of the capabilities of the Red Army, which was exhausted from continuous combat and which had a strong force of Wrangel's White Guardist troops on its southern flank (actually in the rear). When an unfavorable situation developed on the front as a consequence of an enemy counterthrust, Soviet diplomacy was compelled to work hard to reach a peace agreement with the Pilsudski government, which was under the influence of the Entente, which had engineered Poland's attack on the Soviet republic. Successful actions by the Red Army against the White Guardist troops, demonstrating strength, excellent morale and the ideological solidarity of the Red Armymen, exerted definite influence on the governments of our neighbors. Before the end of the Soviet-Polish War, the Soviet government successfully completed talks in 1920 and signed peace treaties with Lithuania on 12 July, with Latvia on 11 August, and with Finland on 14 October.

Securement of the Western borders of Soviet Russia constituted solution to only a part of the foreign policy and strategic problems facing the republic. It was also necessary to secure our southern borders. These tasks were largely resolved during the course of the following year, 1921. Soviet diplomacy gained new victories, signing treaties and exchanging diplomatic representatives with Persia (2 February), Afghanistan (28 February) and Turkey (16 March). In the Far East diplomatic relations were established with Mongolia (5 November).

At the beginning of 1922, however, the international position of the RSFSR could not be considered solid, since not a single major European power, as well as the United States, recognized the Republic. Ruling circles of the Entente nations and other imperialist powers had not yet abandoned their plans of destroying the Soviet state, if not by military means, then by means of an economic blockade and its total isolation in the international arena. It was necessary to split the

united anti-Soviet front of the imperialist powers and to breach the economic blockade. This task was accomplished by Soviet diplomacy at the 1922 Genoa Conference. The Treaty of Rapallo with Germany, signed on 16 April 1922, was an acknowledged success of Soviet diplomacy, which was personally supervised by V. I. Lenin.

Conclusion of the Treaty of Rapallo under difficult conditions demonstrates one more common feature of diplomacy and military strategy: both largely owe their success to the specific individuals implementing them. Lenin stated that "politics is a science and an art, which does not come easily; if the proletariat wishes to defeat the bourgeoisie, it must elaborate its own, proletarian, 'class politicians,' ones who are the equal of bourgeois politicians" (Poln. Sobr. Soch., Volume 41, page 65). This applies in full measure both to military strategy and diplomacy.

Just as each new social system engenders a new organization of the armed forces, a new political organization of society has its own diplomacy with its inherent forms and methods of action.

The socialist revolution in Russia advanced new methods in tactics and strategy, in particular a transition from war of position to high-maneuver combat operations, supported by the utilization of large cavalry units. Soviet Russia also gave the world a new diplomacy, the basic feature of which consisted in a rejection of secret diplomacy, in the holding of open talks. In connection with Soviet peace proposals to Poland, Lenin wrote: "When in January we proposed peace to Poland, a peace which was extraordinarily advantageous to Poland and very disadvantageous to us -- the diplomats of all nations interpreted this in their own way: 'The Bolsheviks are making too many concessions -- this means they are extremely weak.' This reconfirmed the truth that bourgeois diplomacy is incapable of comprehending the techniques of our new diplomacy of open, direct declarations" (Poln. Sobr. Soch., Volume 41, page 281). At the same time Lenin noted that "it is difficult to reform (and to create a new) diplomacy" and that those Soviet citizens working on the foreign policy front must "learn diplomacy." It was thanks to the skill of the Soviet diplomats at the Genoa Conference that the representatives of the imperialist powers failed to impose an agreement in conformity with which the entire burden of restoration of a plundered and devastated Europe would have rested on the shoulders of the peoples of the defeated nations and Russia. In actual fact Lenin's idea of a peace "without annexation or indemnification" triumphed at Genoa.

The performance of the Soviet delegation at the Genoa Conference constitutes an example of skilled practical application of Leninist foreign policy principles: the principle of mutual respect for the rights and sovereignty of all peoples, the principle of peaceful

coexistence and the development of mutually advantageous economic relations between nations with different political systems. But just as successful accomplishment of strategic missions in war is impossible without successful accomplishment of missions of a tactical character, our diplomatic actions in Genoa constitute a model of tactical flexibility, an ability to appraise a situation realistically, to make concessions on secondary matters and to hold fast to the fundamental principles which pertain to the root foundations of the Soviet state.

At certain periods in history diplomacy and military strategy may function as means of foreign policy, accomplishing missions on the basis of interaction, that is, diplomacy may settle by peaceful means matters pertaining to military strategy, and vice versa. Of course here, as in many other aspects of a nation's foreign policy activities, the lines of demarcation between the means and methods of its implementation are extremely mobile and arbitrary; sometimes it is impossible to place a clear-cut demarcation line between them.

The character of diplomatic activity and its role in time of war differ substantially from peacetime diplomacy; its interaction with strategy also changes. The accomplishment of military-strategic missions under conditions of war is advanced to the forefront, while diplomacy pursues the goals of dealing "auxiliary blows." In fact a nation's diplomatic activity becomes a part of those nonmilitary means of policy implementation which, taking into consideration the special status of society as a whole, are contained within the concept of content of war. In spite of the fact that diplomacy accomplishes specific missions with its own special means, successful attainment of the stated aims of diplomacy in the final analysis depends on *successful accomplishment of military-strategic missions.*

The essence and nature of Soviet diplomacy were most fully manifested during the Great Patriotic War, in the struggle to establish an anti-fascist popular front, to overcome delay and out-and-out sabotage aimed against the establishment of the Second Front and, what is particularly important, to split the Hitler coalition. In its activities Soviet diplomacy appealed not only to governments but also to the peoples of the nations of the world.

For example, after the Soviet Army routed a large German force in the Right-Bank Ukraine in August 1944, talks between the Soviet ambassador and the Romanian minister to Turkey resulted in the Romanian government declaring its willingness not only to get out of the war and sign an armistice but also to turn all its armed forces against Nazi Germany.

An important role in overthrowing the former profascist government and establishing democratic rule in Romania was played by the masses, guided by that country's Communist Party. With the defeat of the German troops in Romania and Romania's departure from the ranks of Nazi Germany's allies, Germany essentially lost the capability of conducting any successful military operations on its southern flank, in the Balkans.

In the final phase of the Great Patriotic War the signing of a truce with such countries as Italy, Finland, and Romania, that is, diplomatic documents ending the state of war with these countries, deprived Nazi Germany of allies and dozens of divisions operating against the armies of the USSR, the United States and Great Britain. The signing of these agreements thus accomplished tasks of a military-strategic nature. Behind these actions, however, stood primarily the historic victories of the Soviet Armed Forces at Stalingrad, on the Kursk salient and throughout 1944 on other strategic axes. In other words the Soviet victories constituted the cause of and foundation for successful diplomatic actions, and the latter in turn formalized cessation of combat operations by the troops not only of the above-specified countries of the Hitler coalition actually participating in combat, but also of those which could take part in combat on given strategic axes.

The strategic successes of the Soviet Army on the Soviet-German Front enabled Soviet diplomacy to obtain additional guarantees from the governments of countries which had been conducting a "cold war" against the Soviet Union, although this term was coined much later. Here we have in mind such countries as Turkey, which was preparing to attack our southern flank, and Japan, which was waiting for a suitable moment to attack the USSR in the Far East. These examples provide new evidence that diplomacy does not cease to function when a war begins; on the contrary, frequently diplomacy becomes even more active, influencing the course and even the character of military operations.

Present-day bourgeois ideologues hold to a different view, which states that diplomacy (as a political means) fades into the background or ceases its activity with the initiation of military operations. This view is not new. Field Marshal Moltke wrote: "...Strategy is completely independent of politics in the conduct of its actions."[8] In addition, modern bourgeois theorists and statesmen are inclined to the opinion that military, global, for example, strategy elaborated by militarist circles in many countries should determine both the policies and diplomatic activities of these nations. The concept of "pushing back Communism" as a foundation for the foreign policy of U.S. ruling circles in fact assumes that not only U.S. diplomacy but policy as well should be carried out by means of various wars ("major" and

"minor"), organization of coups d'etat, putsches, sabotage and aggression by pro-American regimes against progressive governments, etc. This type of "militarization" of politics and its foreign-policy means reflects militarization of the economy and the aggressive nature of present-day American imperialism.

The diplomacy and strategy of imperialist nations as a rule assume the form of "cloak and dagger." Soviet diplomacy and strategy accomplish one unified mission -- to secure peace on earth.

Both are devices of one and the same policy, which has never pursued aims of war and seizure of foreign territory. Military strategy, as all essential measures to strengthen the defense capability of the nations of the socialist commonwealth, is dictated by the necessity of opposing the aggressive schemes of present-day imperialism.

In particular, since its very birth the Soviet state has advanced as one of the most important principles of foreign policy the idea of disarmament. Under the influence of persistent pursuit of this policy by Soviet diplomacy, the problem of disarmament has begun playing an increasingly important role in international relations, finding its reflection in the United Nations Charter and in the Resolution of the 14th U.N. General Assembly Session on universal and total disarmament. The signing of multilateral international agreements on prohibition of utilization of space, the sea and ocean floors for deploying nuclear weapons and other means of mass destruction constitutes one more step forward toward solving the problem of disarmament.

"For more than 25 years now our people have lived under conditions of peace," stated Central Committee General Secretary L. I. Brezhnev in his Report to the 24th CPSU Congress. "In this we see the greatest achievement of our party's foreign policy. For a quarter of a century now mankind has been spared the agony of a world war. The Soviet Union and its foreign policy have made a major contribution to this historic achievement of peoples." Today as in the past "*the Soviet Union is opposing the aggressive policies of imperialism with a policy of active defense of the peace and strengthening of international security.*"

Modern bourgeois science has recently been speaking of the crisis of professional diplomacy, of its replacement by "quasi-diplomacy" or "shirt-sleeve diplomacy." Indeed the great diversity of problems resolved by foreign policy in our time, the increase in the number of problems of an economic, technical and cultural character has greatly

expanded the concept of diplomatic activity. In addition to professional diplomats, there is at all times a large number of delegations of a specialized character abroad, without which it is impossible to resolve a great many problems. Embassies accredited to various countries are including an increasing number of experts in science, engineering, economics, and culture.

The development of communications and transportation has greatly increased opportunities for direct contacts between the diplomatic representatives of nations abroad and their governments, as well as directly between governments. "Summit diplomacy" -- between heads of governments and heads of state -- has undergone considerable development since World War II. Critical problems of the present day, pertaining to problems of universal peace and peaceful coexistence, situations fraught with crisis and the possibility of initiation of military clash between two sociopolitical systems have become an object of discussion and resolution directly between heads of state and governments.

The establishment of direct communications, a so-called "hot line" between the Kremlin and the White House, the Kremlin and Whitehall, the Kremlin and the Élysée Palace makes it possible in case of a crisis situation for the head of the Soviet government to establish communication within a few seconds with the heads of state and governments of the United States, Great Britain, and France. Improvement in communications makes it possible for diplomatic representatives to consult regularly and almost immediately with their governments and to obtain appropriate instructions from them. Of course authorization to make independent decisions and the role of diplomatic representatives abroad at the present time are somewhat weaker than was the case of diplomats in the 18th and 19th centuries. But this by no means has diminished the importance of diplomacy in today's world. As a source of continuous, reliable and analytical information and a means of maintaining regular personal contacts with the governments to which they are accredited, diplomatic representations, in spite of the assertions of certain bourgeois political and military leaders, not only have not lost their important role but enable their governments to conduct a more vigorous policy at the highest level. With the formation of the world system of socialism, the brother socialist nations collectively determine and implement a common line in foreign policy matters. "The principal center of coordination of foreign policy activities of the brother nations," states the Central Committee report to the 24th CPSU Congress, "has been and still is the Warsaw Pact Organization." A Political Consultative Committee has been established for consultations between member nations, and a Unified Armed Forces Command has been established of national contingents assigned by each country.

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The strategy of the socialist nations takes into consideration all the latest advances in the area of military technology and, supported by a highly-developed material and technological base, provides for continuous, planned improvement of defense of the entire socialist commonwealth. The increase in the role of political leadership in making decisions of a military-strategic character and in carrying out diplomatic activities in no way reduces the importance of military science and military strategy. Military strategy resolves all matters connected with consideration of all factors of a domestic and external category, planning of future military operations on this basis, and estimate of the capability of potential enemies. It resolves them in close coordination with other domestic and foreign policy means, one of the most important of which is diplomacy. As stressed by L. I. Brezhnev in the Central Committee Report to the 24th CPSU Congress, "we possess all the prerequisites -- an honest policy of peace, military might, and unity of the Soviet people -- to ensure the inviolability of our borders against all encroachments and to defend the conquests of socialism."

FOOTNOTES

1. Diplomaticheskiy slovar' (Diplomatic Dictionary), Volume 1, Politizdat, 1960, page 457.

2. See, for example: Nicholson: The Evolution of Diplomatic Methods, New York, 1954; E. Satou: Rukovodstvo po diplomaticheskoy praktike (Manual of Diplomatic Practices), Izd. IMO, 1961.

3. Zh. Serre: Diplomaticheskiy protokol (Diplomatic Protocol), Izd. IMO, 1963, pp 14-15.

4. Ce Soir, 29 May 1939.

5. Daily Telegraph and Morning Post, 9 March 1939.

6. Dnevnik posla Dodda (The Diary of Ambassador Dodd), Gospolitizdat, 1961, page 532.

7. Ibid., page 519.

8. Strategiya v trudakh voennykh klassikov (Strategy in the Writings of the Great Military Minds of History), Volume 2, Gosvoyenizdat, 1926, page 177.

DEFENSE IN THE PAST AND THE PRESENT

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The theory of defense, as the art of warfare as a whole, is undergoing continuous improvement and increasing sophistication in connection with further weapons development. It has experienced particularly substantial changes since World War II, due primarily to the development of nuclear weapons and missiles, an increase in the role of tanks and armored vehicles in the conduct of combat operations, the development of antitank guided missiles, improved artillery and other combat equipment. It is natural that considerable attention has been devoted in our periodical press, and particularly in the journal Voyennaya Mysl',[1] to problems of defense under these new conditions.

This article pursues the aim, on the basis of analysis of the basic points of field manuals, the views of military leaders, as well as statements by some authors in foreign armies, of demonstrating certain trends in the development of defense since and those changes which are occurring in this area in comparison with the period of World War II.

1.

It is primarily views on the potential scale of defense which have changed. As is well known, in World War II, and in the Great Patriotic War in particular, defense was widely employed not only on an operational but strategic scale as well, both in separate strategic areas and also in the major theaters of war. Suffice it to mention the defensive operations on the Soviet-German and other fronts.

Under present-day conditions the employment of defense is considered chiefly on the operational and tactical scale. It is believed that today even a brief loss of strategic initiative in major theaters, which is characteristic of defense, is fraught with serious consequences and can have a negative effect on the entire subsequent course of the war. NATO military leaders believe that the strategy of "flexible response" as applied to Europe should be based on offensive operations.[2] The NATO armed forces possess large stockpiles of nuclear weapons, powerful ground forces and substantial air power precisely for the performance of offensive missions. It is not out of the question, however, that troops will be compelled to shift to defensive actions in certain operational areas, as a result of abrupt situation changes and an unfavorable correlation of forces.

Since the war views have changed on conditions of shift to defense as well. Most typical in the Great Patriotic War was a shift to the defense under conditions of immediate contact with the enemy. For example, at the beginning of August 1944 the Thirteenth Army shifted to the defense near the city of Melets; other shifts to the defensive were executed by the Fourth Guards Army at the end of December 1944, and the Third Assault, First Polish, Forty-Second and Sixty-First Armies at the beginning of February 1945.[3]

The shift to defense was carried out under extremely difficult conditions. The enemy was endeavoring to prevent the organized occupying and establishment of defensive lines prior to complete deployment of his attack forces. With this aim in mind he made extensive use of artillery fire, air strikes, and undertook numerous infantry and tank attacks. The enemy attacked primarily troops within the range of his artillery, that is forward-echelon large units. Beyond the range of his artillery the enemy was unable in a decisive manner to hinder the concentration of reserves, the preparation of defensive lines, the bringing up of supplies and the conduct of other measures to establish defense. This was due to insufficient numbers and effectiveness of aircraft, as well as limited capability to reconnoiter deep into the defenses, particularly at night and under conditions of reduced visibility. The enemy would spend several days preparing the attack position and deploying the attack force in it. During this time the troops shifting to the defense would succeed in stabilizing the line of the front, effecting the requisite regrouping, adequately fortifying defensive positions, replenishing supplies and carrying out a number of other measures.

Today nuclear weapons, in combination with fire delivered by conventional weapons and air strikes, in contrast to World War II, can inflict decisive defeat on forces shifting to the defense, throughout the entire depth of their combat formation. Total motorization of large units and units makes it possible to begin an attack without halt in attack position, without taking position in an assembly area, quickly moving up attack forces from depth. Therefore troops shifting to defense will have considerably less time at their disposal than in the last war. In a limited period of time it is extremely difficult to carry out even the most essential measures to organize defense, such as consolidation of advantageous positions, establishment of the requisite force, fire systems, artificial obstacles, communications and control, as well as fortification of positions. In addition, it will be necessary to do all this under conditions of vigorous action by the attacking force throughout defense depth, with simultaneous neutralization of consequences of enemy nuclear strikes, repulsion of assaults, with an extremely unstable line of battle. Thus the problem of

gaining time in order to set up a defense when shifting to the defense under conditions of immediate contact with the enemy is presently assuming prime significance.

It is true that the defending force today possesses greater capability to handle this problem than in the last war, in particular due to improved means of reconnaissance and weapons, as well as the extensive employment of various heavy construction equipment in the line units. In World War II limited capabilities of reconnaissance for the purpose of spotting targets at operational depth, particularly if they were carefully camouflaged and moved during hours of darkness and under conditions of reduced visibility, made it difficult to spot reserves, while limited range and comparatively small weapons capability made it impossible to delay their movement beyond the extent of the battlefield for a protracted period of time.

Modern intelligence-gathering devices make it possible to acquire more or less reliable data on an attack force even when it is assembling in rear areas and to monitor it continuously as it advances and deploys. This makes it possible effectively to hit enemy reserves with nuclear weapons both in assembly areas and while moving up. Skillful utilization of nuclear weapons, particularly when reserves are passing through defiles, across rivers, through gorges and other narrow points makes it possible not only to inflict casualties on them but also to delay their advance and consequently to gain time to establish a defense.

Great importance in this connection is also acquired by prediction of the development of future events and prompt decision-making by the higher command echelon for a shift to the defense by a portion of the troops under that command, not when the main attack force is already deploying and attacking but when it begins to move forward or even when it is completing concentration in the rear area. Subordinate troops, having received early orders, will have more time to establish a defense. In such cases, as is stated in U.S. Army field manuals, the defending force can select and occupy defensive positions in advance, and can compel the attacking force to operate along an advantageous axis.

As is indicated by the experience of the Great Patriotic War, additional time for organizing defense was frequently gained in establishing a security zone. The Sixty-Second Army, for example, when shifting to the defense at Stalingrad in July 1942, sent out forward detachments in the form of reinforced rifle regiments from division support echelons to a distance of 60 km. Engaging the enemy in the security zone, the forward detachments delayed his approach to the FEBA by 5 to 6 days, enabling the defending troops to gain time, to fortify their positions, and to gain detailed information on the enemy force and main axis of attack.[4]

Increasing attention has been devoted to the security zone since the war. In the U.S. Army, for example, a security zone with a depth of 25 kilometers or more is established in organizing both a mobile defense and an area defense when there is no close contact with the enemy. NATO military leaders are presently taking steps to establish along a common border with the socialist nations a so-called "nuclear minefield zone," which includes a security zone containing a system of nuclear mines and other obstacles.[5] Establishment of cover and a security zone is becoming one of the principles of setting up defense under present-day conditions.

The existence of a security zone makes it possible to place the main forces which are shifting to defense beyond the range of hostile tactical nuclear weapons, to conceal them from ground reconnaissance, ensures favorable conditions for requisite regrouping and effective employment of heavy construction equipment not only in defense depth but on the FEBA, and facilitates determination of the size of the attacking enemy force and the enemy's intentions before he reaches the main defensive positions.

Due to the increased role of the security zone, considerably larger forces are now provided for defending it than was the case in the past. During the Great Patriotic War forward detachments from forward-echelon divisions, in the form of reinforced battalions and regiments, would be sent forward into the security zone. According to present views of U.S. military leaders, an armored or mechanized division can be sent forward from an army corps on the main axes to function as a covering force in the security zone; a brigade or battalion tactical group is sent out from forward echelon divisions on secondary axes, as well as when the security zone is fairly shallow.[6] It is quite obvious that such a security zone, particularly if it contains nuclear landmines, will constitute a serious obstacle to an attacking force.

3.

Views on dispersion of troops in defense have also changed. Combat experience indicates that troops have always resorted to dispersion in order to reduce losses. The principles and degree of dispersion would change in relation to weapons development. Prior to the development of nuclear weapons the degree of dispersion was determined by the effective casualty radius of single artillery shells, mortar shells and bombs. Dispersion was employed only in small subunits, in order to protect a machinegun or gun crew, as well as the individual rifleman, that is in practical terms it was not of decisive significance in defense. Defense was constructed on a solid front.

Today the picture has changed. In connection with the enormous destructive force of nuclear weapons and the constant threat of nuclear weapon

employment, subunits, units and even large units should, in the interest of maximum reduction of losses, disperse both along the front and in depth, of course without reducing the stability of the defense. The size of defense zones, sectors and areas has increased approximately twofold-threefold in frontage and depth, a development which has been prompted in large measure by an overall increase in troop combat capabilities. In the past division defense frontage varied from 6 to 8 kilometers, and regimental defense frontage -- 2-3 km, while today, in the NATO member nation armies, for example, the division defense frontage is 20-30 km, brigade -- 6-10 km and more; defense depths were 6-8 and 3-4 km respectively, while now they can be as much as 30 km and 6-8 km.[7]

There has also been a change in the structure of defense zones and sectors. While they are still based on trench-fortified positions, defense is now structured in a system of battalion areas, and in certain cases company strong points as well, fortified for perimeter defense and containing gaps for the purpose of reducing casualties from nuclear strikes. According to figures in the foreign press, it is believed that gaps of 500-1000 meters between company strong points and 1-2 km between battalions not only establish the requisite degree of dispersion along the front but also ensure coordination of fire between subunits, which is essential for ensuring a solid defense.[8]

The adopted depth of defense as a whole corresponds to the interests of protection of troops against weapons of mass destruction and provides for the execution of broad maneuver and maintenance of tactical coordination between forward and support echelons. Principal efforts are now focused on holding both forward and subsequent positions. This has introduced changes into the grouping of forces and has required the establishment of stronger support echelons. In addition, under present-day conditions there has developed a tendency toward assigning a larger proportion of forces to the support echelons. This is due to a number of factors, the most important of which are the following: existence of nuclear weapons, increase in the proportion of tanks and other armored vehicles in the combat formations, as well as increased attacking force reconnaissance capabilities.

World War II demonstrated that the enemy spotted installations and other targets located on and immediately behind the FEBA much more easily and faster than troops located at depth. The enemy concentrated the bulk of his firepower on hitting precisely those targets. But well-fortified and solidly manned positions, including forward positions, can stand up well under fire from conventional weapons. In addition, in connection with the low degree of maneuverability of units and subunits positioned at depth, they frequently would be unable to reach in time the necessary points to offer active opposition to penetrating hostile forces. Therefore the

stability of defense as a whole depended to a substantial degree on holding the forward positions. This is what essentially predetermines the necessity of allocating the greater part of forces to the forward defense echelon.

Today, no matter how well prepared and fortified a forward defense echelon position is, it is for all practical purposes unable to withstand nuclear strikes. If one also considers that support echelons can not only be better concealed from reconnaissance but also are capable, extensively employing excavating equipment, of rapidly fortifying their positions and thus reducing the vulnerability of troops dispositioned in depth from nuclear strikes, one can understand the tendency to allocate a greater part of forces to the support echelon. The forward echelon contains only minimum requisite forces capable of repulsing an initial attack from march formation by forward units of the attacking force, and capable of holding the most important pieces of terrain on the probable axes of attack. This is one side of the question.

On the other hand, the attacking force will endeavor to breach the forward defense echelon combat formations with nuclear weapons and to utilize these strikes to penetrate into defense depth with tank forces and motorized infantry along separate axes, as well as to mount airborne assaults on these axes. Under these conditions it is essential to possess, in order to close breaches formed by nuclear strikes, to engage airborne assault forces and to destroy a penetrating force, in addition to nuclear weapons, strong support echelons consisting of highly-maneuverable, predominantly tank (armored) troops.

Assertion of this trend, that is allocation of the greater part of forces to the support echelons, is clearly manifested in the so-called "mobile defense" cultivated in the West, particularly in the U.S. Army. In the view of NATO military leaders, this defense corresponds more than any other type (for example, area defense) to the demands of waging combat operations under conditions of employment of nuclear weapons. It makes it possible to effect maximum utilization of the high mobility and striking power of modern troops and to concentrate superior forces in decisive areas during the course of battle. The division mobile defense zone normally encompasses a forward area and disposition area of reserves (support echelon).[9]

Only 4-5 battalions, for the most part motorized infantry reinforced by a small number of tanks, are assigned, in an U.S. Army division of 10-11 battalions, to defend a forward area whose depth does not exceed 6-8 km. Their mission is to engage the main attack force, disorganize and delay it to a maximum degree, and to compel the enemy to occupy a position which is favorable for the delivery of nuclear strikes and completion of the defeat with counterattacks. The greater number of battalions (6-7), primarily

tank battalions, are assigned to reserve (support echelon), primarily for mounting counterattacks. Defensive-offensive actions of this type ensure vigorousness, decisiveness and a maneuver character to defense.[10]

In combat operations where nuclear weapons are not employed, however, troops will frequently employ, as is stated in U.S. Army Field Manual FM 100-5, an area defense in which, as in the past, the greater part of available forces is assigned to the forward defense echelon,[11] that is to the forward defense area, with the mission of holding tactically-advantageous terrain, and with the predominance of defense in place.

The threat of nuclear attack by the advancing force compels the defending force to avoid establishing dense formations in areas where the main attack effort is concentrated, as was practiced in the last war. In the armies of the United States, the FRG and other NATO member nations, the defense frontage of subunits in these areas will be approximately the same as in other sectors. It is proposed to achieve concentration of main efforts in modern defense primarily by employing the bulk of nuclear weapons on selected axes, by establishing in these areas a denser fire system and system of obstacles, by extensive maneuver to these areas of various reserves and troops from secondary sectors of the front, both to reinforce these areas and to mount vigorous counterattacks and counter-thrusts.

The importance of air defense for achieving the objectives of modern defense is growing, in connection with the increasing sophistication of air offensive weapons.

Even during the Great Patriotic War skillful employment of air power enabled attacking troops to mount effective air strikes both with the aim of weakening the enemy's defenses and to destroy hostile forces. For example, in the Berlin Operation the Eighteenth Air Army, at the initiation of close air support, mounted a massive attack on six strong points in the enemy's second zone of defense, thus securing the fastest penetration of enemy defenses. In the Belorussian Operation attack aircraft of the First Air Army demolished a large German force which had been encircled in an area to the southeast of Minsk.[12]

Today there exists much greater air attack potential, since aircraft, in addition to conventional bombs, can deliver nuclear weapons and napalm.

Employing these modern weapons, a defending force is capable of establishing a very effective air defense system, in which a decisive role is played by antiaircraft missiles. On the basis of recent exercises held in the West it is believed that two antiaircraft missile regiments plus battalion light antiaircraft artillery will be required to cover an army corps zone of action.[13]

Bearing the above in mind, official U.S. Army manuals, and Field Manual FM 100-5 in particular, devote considerable attention to the organization of antiaircraft defense employing not only AA artillery and fighter-interceptors, but surface-to-air missiles as well, plus devices to jam enemy radioelectronic gear.

4.

In defense considerable attention has always been focused and is now being focused on combat against tanks, which is due to a constant increase in the role played by armored vehicles in combat, and consequently to their quantitative and qualitative growth. With the development of nuclear weapons the role of tanks has become even more important, while armored personnel carriers are transitioning from a means of transport to a combat vehicle. Tanks and armored personnel carriers (infantry combat vehicles) present the best opportunity to take advantage of the employment of nuclear weapons. Therefore they are being used in increasing numbers in modern armies. For example, in the armies of the capitalist nations, at the present time the number of tanks in armored and infantry (motorized infantry) divisions has been increased to 364 and 130-200 respectively. The number of APCs is also increasing. Each mechanized or armored division now contains more than 500-700 of these vehicles.[14]

As regards the qualitative aspect of tanks, which is characterized by armor protection, weapons and maneuverability, it can be judged by the following indicators. Since World War II armor thickness has increased from 75-105 mm to 150-200 mm; the calibers of tank guns and antitank guided missiles have increased from 75-88 mm to 105-155 mm; tank speed has increased from 26-40 to 65-70 km/hr.[15]

The importance of antitank defense has increased simultaneously with the development of tanks as a powerful offensive weapon. In the Great Patriotic War the antitank defense system included company strong points united into battalion antitank strong points, unit and large unit antitank areas, artillery-antitank reserves, as well as mobile obstacle detachments. Antitank fire played a decisive role in defense. Howitzers, guns and tanks were employed in addition to antitank weapons for direct fire against tanks. These fires were reinforced on the approaches to the forward defense positions by indirect artillery fire and air strikes by attack aircraft.

The role of antitank defense has increased to an even greater degree under present-day conditions. For example, the West German field manual Directing Ground Forces states that defense is first and foremost combat against tanks. Today, as in the past, all weapons capable of inflicting damage are employed against tanks and APCs. But today these forces, particularly

general-purpose forces, such as missile troops and aircraft carrying nuclear ordnance, and tanks, as well as special antitank weapons, are substantially superior in firepower, effectiveness and quantity to those which were employed in defense prior to the development of nuclear weapons.

In spite of a twofold and threefold increase in width of defense zones and sectors, the density of antitank weapons and tanks has increased greatly in comparison with what it was in the Great Patriotic War. The principal antitank weapons are antitank guided missiles, the effective range of which is greater than that of grazing fire from a modern tank gun. In addition, they are highly accurate. According to information contained in the foreign military press, their shaped charge can penetrate armor up to 400-600 mm thick at a range of 3-4 km and more.[16]

Today the antitank defense system has merged with the overall defense system, becoming its foundation, whereby the antitank effort should be handled not only by combat subunits but also by special troops and rear services subunits. For example, West German field manuals and regulations emphasize that antitank defense in special arms and rear services subunits shall be organized with organic means for engaging tanks which have penetrated their position area. It is not a matter of close combat with enemy tanks with the aid of mines, grenades and other such devices, but rather a firefight waged with organic modern antitank weapons. This applies to all units and subunits both in position and in disposition areas, as well as personnel of supply dumps, bases and other rear-area installations. It is stated in addition that organization of antitank defense is the task not only of combined-arms commanders and commanders of antitank units and subunits but also of officers of all arms.[17]

In present-day defense, thanks to the availability of nuclear weapons, tank forces can be dealt a decisive defeat at the phase of approaching forward defense positions by individual, group and massed strikes, as a result of which an attack force which is moving up or has readied for an attack can be significantly weakened. U.S. Army Field Manual FM 100-5 specifies that the principal strike on hostile tanks shall be delivered on areas of their concentration.

In connection with the fact that in defense nuclear weapons are employed as a rule against the main attacking force, and against the most important enemy targets on the approaches to the defensive positions, destruction of hostile armored vehicles forward of the FEBA, particularly repulsion of tank and APC assault and destruction of these vehicles in defense depth, is achieved with maximum utilization of conventional weapons, particularly with direct fire, the role of which, as is correctly noted in the West, not only does not diminish but on the contrary is even greater.[18] Prime importance is attached to this in the West German Army.

Bearing in mind the fact that the attacking force may use nuclear strikes to blast gaps in the defense, disrupting the integrity of the AT defense system, maneuver of fires, tanks and antitank weapons has become even more important. It is precisely due to prompt maneuver of fires, men and weapons that defense integrity can be restored, which will ensure defense stability against tanks and APC (infantry combat vehicles).[19] For example, West German military experts are of the opinion that self-propelled antitank guns and tanks in antitank defense can fully utilize their fire capabilities only with maneuver.

5.

Defense has always endeavored to achieve its objectives not only through passive repulsion of attacks from position but, to the extent this is possible, by combining stubborn holding of vital terrain with vigorous, decisive actions. The role of vigorous offensive actions for achieving defense objectives has increased with an increase in the range and potency of weapons and increased troop firepower and maneuver capabilities. Even in the Great Patriotic War, efforts to hit the enemy at distant approaches to defensive positions with air strikes was typical of Soviet defensive operations. During the period of buildup of the enemy main force in attack position in the immediate vicinity of the defending troops, attempts were undertaken to halt or at least substantially to weaken the attack by means of the conduct of counterpreparation (defensive operations of the Sixteenth and Nineteenth Armies of the Western Front in October-November 1941, of the Fifty-Seventh Army of the Southwestern Front and the Sixty-Second Army of the Stalingrad Front in September 1942, of the Central and Voronezh fronts in the Battle of Kursk in the summer of 1943). The objective was not attained, however, due to insufficient counterpreparation firepower. At best the attack was merely delayed a few hours.

Unable to defeat the enemy decisively on the approaches to the defensive positions, the defending force was compelled to handle the task of defeating the attacking force in successive fashion, during the course of a protracted defensive battle, in which an extremely important role was assigned to the holding of fortified lines of defense, particularly the first (main) defense zone. The defense lines, fortified and densely occupied, were very stable, as noted above, when receiving fire from conventional weapons, and therefore the defending force was able to hold them for a protracted time and to inflict heavy losses on the attacking force.

In case the enemy penetrated defense lines, it would be extremely difficult not only to reestablish the situation but even to stabilize the line of battle. Maneuver, and particularly maneuver of rifle large units, as mentioned above, in order to establish counterattack forces or to reinforce defense in threatened areas, was very difficult due to poor troop maneuver capability. Counterattacks and counterthrusts proved successful only when

it was possible to halt the attacking force, to inflict substantial losses and to compel the enemy to commit his reserves. The mounting of counter-attacks and counterthrusts against an enemy who had not been halted and who had retained his offensive capabilities, with infantry and a limited number of tanks as well as with little effectiveness of artillery support very frequently failed to produce decisive results. Therefore defense in place predominated both in tactical and in operational defense.

Under present-day conditions, when conducting combat operations without the employment of nuclear weapons, a defending force is also unable to stop a well-prepared attack. The defending force does, however, possess greater capability for maneuver and the establishment of a stable defense in favorable positions faster than was the case in World War II.

While the effectiveness of conventional means of neutralizing and destroying targets on the battlefield has increased quite insignificantly, the character of the majority of defensive installations which the attacking force must hit has undergone substantial qualitative changes. In the last war the principal targets to be hit in the defense were infantry in trenches or other fortifications, as well as artillery in fortified and unfortified positions. Due to a lack of contruction equipment, fortification of infantry and artillery positions was a very laborious process, involving a considerable expenditure of time. Tank density in defense was very low. For example, the operational density of tanks on a kilometer of frontage in defense at Moscow was 1-2, 3-6 at Stalingrad, and 7 at Kursk, while tactical densities in the Battle of Kursk did not exceed 3.5 tanks per km of front. At that time the troops had insignificant numbers of other armored vehicles.

The situation has now changed radically. Modern defense involves a large number of tanks, APC, self-propelled armored artillery and other armored vehicles. For example, the defense zone of a mechanized division in the U.S. Army and a motorized infantry division in the FRG may contain more than 1000 such armored vehicles, with an average density of 30-50 units per kilometer of frontage.[20] If bulldozer attachments and other construction equipment are available, all these armored vehicles can very quickly be dug in, with each transformed into a so-called permanent-construction pillbox, able to stand up well under artillery fire from indirect-fire positions as well as direct fire. It is extremely difficult to push past such "armored" positions employing only conventional weapons.

Total troop motorization and the availability of a large number of tanks in large units and units make it possible quickly to reinforce troops on threatened axes, to take up defense in advantageous positions in depth with the aim of preventing further enemy advance, as well as quickly to establish counterattack forces. The role of maneuver in defense with only conventional weapons has increased greatly.

Under conditions of nuclear weapons employment, a defending force can even disrupt an attack which is in preparation. Of course this requires that the troops shifting to the defense possess the requisite number of nuclear warheads and means of delivering them, that they are able promptly to determine the location of the enemy main force and deliver effective strikes on it while it is moving up and deploying.

When shifting to the defense, however, troops normally will be acutely short of nuclear weapons. Therefore it will in many cases not be possible for them to achieve substantial objectives involving destroying the enemy on the approaches to the defensive positions. The defense will be able to achieve its objectives only during the course of a defensive engagement, first weakening the advancing enemy attack force with nuclear strikes.

Position warfare will lose its decisive role in defensive battles fought in a nuclear war. The main role in achieving the objectives of modern defense will be played by nuclear weapons and vigorous offensive operations. According to the official views of U.S. military leaders, offensive operations are of importance for all types of defense, and particularly in the conduct of mobile defense. Offensive operations are undertaken to exploit the consequences of attacks with nuclear and other weapons, to destroy a penetrating hostile force, at a convenient time and place which is advantageous to the defending force, to attack the enemy by surprise and thus to achieve substantial results, as well as to assist troops when they are disengaging.[21] As regards the holding of important areas and positions, during this effort it is necessary to harass the enemy, slow down his rate of advance, force him to establish solid forces in restricted areas, thus ensuring favorable conditions for effective employment of nuclear weapons and vigorous offensive actions.

Nuclear strikes, counterattacks and counterthrusts supported by massed fire of conventional weapons constitute the fundamental way to achieve success in defense. They are conducted normally with decisive objectives of destroying the attacking enemy force and seizing the initiative. There is also the possibility of mounting counterattacks and counterthrusts, with troops penetrating beyond the FEBA, in order to destroy a certain part of the enemy forces, to disrupt his combat formations and to capture specific ground in order to establish conditions for a subsequent shift to the offensive.[22]

We have been discussing above some tendencies in the development of defense in the postwar period, caused by the development of nuclear weapons and the further development of conventional weapons.

FOOTNOTES

1. Voyennaya Mysl', No 12, 1968; No 7, 1969; No 11, 1970.

2. Voyennyy Zarubezhnik, No 4, 1968, page 3.

3. Istoriya Voyennogo Iskusstva. Kurs lekts. ory of the Art of War. A Lecture Course), Volume 7, Izd. Voyennoy . aemii im. M. V. Frunze, 1956, pp 342-343, 495-496; Volume 8, page 118.

4. Ibid., Volume 5, 1958, pp 550-553.

5. Voyennyy Zarubezhnik, No 1, 1969, page 65; No 7, 1967, page 78.

6. Voyennyy Zarubezhnik, No 1, 1969, page 65.

7. A. A. Sidorenko: Nastupleniye (The Attack), Voyenizdat, 1970, page 52.

8. Organizatsiya i vooruzheniye armiy i flotov kapitalisticheskikh gosudarstv (Organization and Armament of the Armies and Navies of the Capitalist Nations), Voyenizdat, 1968, pp 345, 354.

9. Sidorenko, op. cit., page 54.

10. V. S. Makarov: Bronetankovaya diviziya armii SShA (U.S. Army Armored Division), Voyenizdat, 1967, page 188.

11. Voyennyy Zarubezhnik, No 1, 1969, page 65.

12. Voyennaya Mysl', No 6, 1969, pp 43-44.

13. Voyennyy Zarubezhnik, No 1, 1968, page 9.

14. G. F. Biryukov and G. V. Mel'nikov: Bor'ba s tankami (Combat Against Tanks), Voyenizdat, 1967, page 26.

15. Ibid., page 18.

16. Ibid., pp 85-86.

17. Voyennyy Zarubezhnik, No 11, 1967, pp 13, 16.

18. Voyennyy Zarubezhnik, No 1, 1967, page 13; No 11, 1970, page 18.

19. Voyennyy Zarubezhnik, No 4, 1967, page 15.

20. Organizatsiya i vooruzheniye..., op. cit., pp 255-264.

21. U.S. Army Field Manual FM 100-5, page 147.

22. Ibid., page 148.

COMBAT ACTICNS ON THE SEA

Capt 2nd Rank V. Bestuzhev

World War II, the course and outcome of which were determined by campaigns on the Soviet-German Front which were unprecedented in scale and savageness of fighting, at the same time demonstrated the significant and growing role of combat operations on the sea in the achievement of war aims by the belligerents involved. During the 5 years and 8 months of the war a total of more than 4000 surface units and submarines, thousands of aircraft of the most varied types, and a vast number of transport vessels took part in the war at sea. A total of 11,500 convoys, involving approximately a quarter of a million vessels, crossed the Atlantic Ocean and adjacent seas; this is approximately equivalent to the crossing of 170 convoys each month, each convoy consisting of 20-25 transports. A total of 800,000 sea mines were deployed to combat shipping.

During World War II the belligerent nations destroyed, sank and disabled more than 2000 combat surface units and submarines, as well as a total of 39 million tons in transports.

Successful sea operations frequently ensured the attainment of military objectives in certain strategic areas, such as seizure of islands in the Pacific and the coast of Southeast Asia by the Japanese, and later by the Americans, the conduct of German operations in North Africa, and the opening of the Second Front in Europe in 1944.

Even these incomplete facts and figures enable one to gain an idea of the scope, character and significance of naval operations in World War II.

Since the war the major capitalist maritime nations, and particularly those which have traditionally assigned the navy a leading role in the initiation and conduct of war, have directed their efforts toward further development of naval forces, arming them with nuclear-missile and other modern weapons, electronic equipment and computers, as well as advanced communications gear. U.S. ruling circles, for example, possessed with the insane idea of world hegemony, count heavily on the navy for the accomplishment of strategic missions in a world war and in local wars. The modern navy is viewed by the Pentagon as a force which is within the capabilities of only a few nations, which possess exceptionally great industrial potential, enabling them to build modern submarines and surface ships equipped with nuclear propulsion plants, automated equipment and electronic gear. In the opinion of NATO military experts, the navy is capable of "justifying" fastest and with the greatest return the colossal expenditures required for its development and maintenance at a high level of combat readiness in peacetime.

Proceeding from these assumptions, increasingly popular in the United States is the opinion that preference in development of strategic forces should be given to the navy, and particularly to missile-carrying submarines and attack carriers. Submarines can launch their missiles and carriers their aircraft at any point in the world ocean, which results in a substantial dispersal of forces and requires an intensive countering effort on the enemy's part. At the same time they are continuing in an extensive program of arming submarines, aircraft and service units with conventional weapons. The trend toward intensive arming of naval forces with conventional weapons is particularly characteristic of the last 3 to 4 years and is based on the experience of active U.S. participation in local wars and various military adventures.

Particularly important combat characteristics of the navy are its capability of maintaining attack forces in the immediate vicinity of and even in contact with the enemy, as well as the capability of maintaining a continuous state of readiness to initiate combat operations. And this, in the opinion of foreign military experts, can significantly weaken response attacks on U.S. territory, which comprises only several percent of the earth's land surface and which in case of war would constitute the main target of retaliation for aggression.

In addition, an extremely important role is assigned to the navy in the foreign policy of Western nations in peacetime. "Dollar and big stick" diplomacy, whereby naval forces perform the function of the stick, continues to be extensively employed today.

It is precisely in connection with these factors that the world ocean and the world's seas are presently being tranformed by the imperialists into vast launching sites for highly-mobile, concealed-operation, constantly combat-ready, underwater-launched missiles, and carrier-based aircraft.

Of course the role of navies has increased primarily as a consequence of nuclear-missile weapons and nuclear propulsion plants. The effect of the military technological revolution on the navy has been so profound and far-reaching that today it is impossible to name a single naval arm or category of naval weapon where in the last several years there has not occurred a substantial improvement in performance and combat capability.

In the submarine fleet there has occurred a great improvement in the reliability of all submarine systems and equipment; the levels of various physical fields have been reduced; operational speed and depth have increased; there has been a substantial improvement in accuracy in determining a submarine's location and accuracy in long-range missile fire. Certain success has also been achieved in efforts to find the most advantageous means of solving the problem of long-range communications with

submarines at great depths. Many measures have been implemented in the replacement of missiles with advanced models possessing improved ballistic performance and greater range with a substantial warhead (for example, the Poseidon missiles, which are replacing the Polaris).

Some nuclear submarines are equipped to plant mines. According to official reports abroad, missile-carrying submarines of the George Washington class can plant up to 256 mines; in the opinion of American experts this will enable each submarine to lay, in a concealed operation, a mine field more than 50 square kilometers in size.

Materials published in the military press in the United States, Europe, and Asia indicate that in recent years naval aircraft of the leading naval powers have been fitted with specially-designed ASW search systems, attack systems for use against surface units, and reconnaissance systems for situation observation.

It is believed that under certain conditions these systems will give aircraft the capability of conducting operations according to the principle "independent search-spot-kill." This (taking into account the great effectiveness of airborne weapons) adds a number of new characteristic features to naval warfare, enhances the mobility of naval aviation, its combat readiness, etc.

The development of surface ASW forces is proceeding in the direction of building both water-displacing surface units and air cushion vessels, including an airfoil (ekranoplan) version.

Construction of attack carriers is continuing, including nuclear-powered carriers. In contrast to ballistic missile submarines, which are designed to attack fixed targets on land, the principal missions of embarked aircraft are attacks on surface units at sea and in base, search for and destruction of submarines, as well as support of ground forces in operations in overseas theaters. At the present time the U.S. Navy contains 16 attack carriers (plus two nuclear-powered carriers under construction).

Modern surface combat ships possess greater capability than their predecessors to repulse submarine and air attacks, as well as improved protection against mines and torpedoes. They can move fast and enjoy unprecedented freedom of selection of areas of combat utilization.

An important place in the naval development programs of various countries has also been assigned to the development of modern types of surface units which can be employed in amphibious landing operations, in mine countermeasures, which can operate on sea lines of communication, which can replenish submarines and surface units at sea, etc.

Navies have become major components of armed forces, capable of conducting large-scale operations over vast areas, with decisive objectives, at a high speed and intensity.

All this has immeasurably increased the importance, in comparison with World War II, of the time factor, the factor of surprise, the necessity of steadily and comprehensively reducing the time required to make naval forces combat-ready. Today the slightest delay in initiating action will have an extremely negative effect on the achievement of objectives and will result in immense losses which will be very difficult to replace.

These factors, along with further intensive development and improvement of submarines, surface units, naval fixed wing and rotary wing aircraft, as well as naval weapons, have predetermined substantial changes in the principles of naval force utilization, methods of mission performance, organization of coordinated action with the other services, and in implementing control and support services.

Many military experts in Europe and the United States believe that navies are capable of performing the following basic missions in modern wars:

effectively damaging and destroying at great range important installations on enemy territory;

conducting a systematic effort against the nuclear-powered ballistic missile submarine threat;

destroying enemy attack forces at sea;

disrupting shipping;

supporting friendly shipping and other sea traffic, reliably protecting and defending cargo loading and troop embarkation ports, convoys and individual transports at sea;

executing various types of amphibious operations;

successfully assisting ground forces in coastal areas.

One must certainly agree on this point if one thoroughly considers the achieved level in development of submarines, naval aviation, surface units and their arsenal of weapons, and if on this basis one appraises their capabilities in respect to the nature of combat operations in the future.

In addition to the above, navies have a large number of other very important and at times difficult specific missions.

Destruction of important targets in enemy home territory is considered a principal mission of today's navy if nuclear weapons are employed. This is attested by an intensive concentration of missile-nuclear firepower on submarines and surface units, which began from 10 to 12 years ago, and which in the final analysis led to a sharp increase in the navy's share of the overall nuclear potential of several highly-developed maritime nations. For example, at the present time naval forces account for almost two thirds of all nuclear devices in the U.S. arsenal. The 3 November 1970 issue of the Christian Science Monitor stated: "...The backbone of the U.S. strategic arsenal is a submarine fleet armed with Polaris and Poseidon missiles; in the last 10 years this fleet has grown to 41 submarines. By the mid-seventies 31 of these 41 submarines will be converted to the Poseidon system. When this is accomplished, the United States will possess in its arsenal thousands of warheads on the line, ready for delivery in case of a nuclear war... Each of the 496 Poseidon missiles will carry 10 or 12 warheads, as a result of which the total nuclear clout of the undersea fleet will comprise more than 5000 warheads."

It has been emphasized on numerous occasions in the press of the major naval powers that the targets of initial navy nuclear-missile strikes will be all militarily-important economic centers, major transportation centers, and supply storage facilities both in the vicinity of the front and far to the rear. These targets can be attacked from the sea, from great distances, at any time of day or night, regardless of weather. Foreign naval experts believe that the destructive capability of even a few ballistic missile submarines is sufficient to demolish entire industrial areas and to disrupt the enemy's vital activities, system of control and administration. In their opinion the enormous efficiency of nuclear strikes from the sea against major fixed targets on land demands strictly centralized, automated control of the ballistic missile submarine, for this alone can ensure that they maintain a high degree of combat readiness, can ensure optimal planning of combat operations and continuous direction of forces in any situation. This of course has predetermined the introduction of changes in the earlier-established functions of the appropriate headquarters and command entities.

The effort against the ballistic missile submarine threat is considered to be one of the navy's most important and primary missions, not only in war but long before war occurs. In order to understand its importance it is sufficient to recall that modern nuclear-powered ballistic missile submarines are armed with up to 16 nuclear-warhead missiles with an effective range of 4000 kilometers and more. These submarines are capable of sustained patrols of several months, can dive to depths of 300-400 meters, have a submerged speed of up to 55 km/h, and can cover almost 1300 kilometers in 24 hours.

The vital importance of combatting the ballistic missile submarine threat is in large measure dictated by the fact that at the present time combat-ready nuclear-powered ballistic missile submarines are on patrol in the world's seas and oceans. As an example we might mention patrolling conducted by U.S. submarines in the Mediterranean, in the Eastern Atlantic and the Western Pacific. In order to conceal their location, submarines are assigned patrol areas covering several thousand square kilometers; they cruise at great depths, at speeds which generate minimal noise, and all factors of the surface, underwater and air situation are considered in detail.

One can judge the special importance of nuclear-powered ballistic missile submarines in the aggressive plans for a new world war from the war-mongering statements by U.S. leaders, who have declared time and again that submarines armed with Polaris and Poseidon missiles will be utilized together with land-launched ICBMs in initial nuclear strikes against the Soviet Union and the other socialist nations.

Judging from foreign publications, at the present time neutralization of the ballistic missile submarine threat can be effected either by destroying the submarines themselves or by creating conditions making it as difficult as possible for them to launch their missiles and at the same time ensuring the capability of destroying in flight those missiles which they are able to fire. But regardless of which of these methods is used in countering the ballistic missile submarine threat, essential first and foremost are reliable methods of submarine search and tracking.

In spite of a high degree of inherent concealment and the factor of surprise, there are a number of tell-tale indications of a submarine's presence, which can be employed in ASW search and tracking. For example, when a submarine is in motion a hydroacoustic field is generated in its vicinity, due to the noise produced by the propellers, machinery on board, hull vibration, eddies, etc. Under certain conditions these noises can be recorded with a good degree of reliability by modern shipboard, shore-sited, airborne and helicopter-borne hydroacoustic gear at considerable distances from the noise-producing submarine. In addition to the above field, thermal, magnetic, radioactive and other fields form around a submarine, which can also be fairly effectively detected, recorded, and sometimes classified as well, with the aid of the latest shipborne and airborne search gear and equipment carried by special ASW submarines. The presence of data on a submarine's location substantially determines capability to destroy it with rocket-torpedoes, torpedoes, depth charges, aircraft bombs and other weapons.

Destruction of hostile naval attack forces at sea aims at destroying or at least substantially reducing at the beginning of a war the nuclear

delivery potential not only of submarines but also of surface units, and attack carriers in particular. In contrast to nuclear-powered ballistic missile submarines, the latter are capable of mounting with equal intensity attacks both with nuclear and conventional weapons. Possessing an extremely high degree of maneuverability, attack carriers can cover 1000 kilometers and more in 24 hours, while their embarked aircraft can fly strikes from a considerable standoff range and along an extended front.

The destruction of hostile naval attack forces involves the necessity of encompassing with combat operations vast sea and ocean areas, and in many cases substantial stretches of coast as well. The spatial extent of combat and intensity of force utilization increase with increases in effective range of embarked aircraft and range of new submarine-launched missiles. In the opinion of military experts in various countries this leads to a situation where the destruction of hostile naval attack forces becomes an increasingly important component of warfare as a whole. It is believed that this problem can be most successfully solved with coordinated efforts between the navy and other services.

Disruption and prevention of enemy shipping is still viewed as a vital and extremely complex task, particularly when a war proves to be protracted and sea lines of communication become for many countries essentially the sole artery capable of supplying to a certain degree forces deployed in a theater of war.

One can also draw certain conclusions on the potential scale of maritime transport from figures for World War II. During this war Great Britain imported approximately 250 million tons of cargo, while the United States imported 120 million tons. There is every reason to assume that in case of war, strategic raw materials requirements will increase for many countries; consequently there will be a substantial increase in the scope and intensity of maritime shipping.

Postwar events and conflicts also indicate the great importance of sea lines of communication under present-day conditions: they constitute the delivery avenues for the bulk of supplies and implements of war moving to the various theaters of war. Expanding its aggression in Vietnam, the United States delivers more than 95 percent of supplies and approximately 65 percent of personnel by sea. Aware of the danger presented by disruption of sea transport if a world war breaks out, aggressive bloc military leaders are making a great effort to ensure the uninterrupted operation of sea transport. It is therefore believed that in order to achieve effective solution to the problem of sea transport, considerable manpower and forces will be required for the job of attacking numerous convoys and transport ships, escort forces, ports of embarkation and destination.

The securement of sea lines of communication (protection and defense of ports of embarkation, convoys and individual transports at sea) has always been an important and extremely difficult mission for the navy, requiring a considerable quantity of manpower and hardware, with a very high combat intensity. For example, for the protection of Atlantic shipping in the last war the British were forced to muster a total of 1500 shore-based aircraft, 20 aircraft carriers (including 13 American), and approximately 3500 warships for convoy escort duty and for patrolling sea-lanes.[1] British and Canadian shore-based aircraft flew approximately 130,000 convoy escort and patrol missions.

Due to a sharp increase in the combat potential of various forces capable of effectively participating in combat operations at sea, as well as the extreme aggravation of conflicts, in connection with this, between the efforts of the opposing sides to conduct more vigorous offensive operations on land, in the air and on the sea, and the necessity of simultaneously defending transport ships and the cargo they carry, protection of sea lines of communication is becoming rather complex in nature. In particular, it is not always possible to ensure the protection of shipping (as was the case in the past) solely by organizing various types of defense of convoys and individual transports during the course of routine naval combat operations. A number of difficulties also arise in organizing on- and off-loading of troops and combat equipment at ports of embarkation and destination. These and other circumstances indicate that vigorous, decisive efforts to destroy principal hostile attack forces are of primary importance to protect friendly shipping. Of course it may be necessary to involve other substantial forces in addition to the navy for the conduct of these operations. In connection with this, in the opinion of U.S. and European naval experts, it will frequently be necessary to organize operations for the protection of sea lines of communication in the form of a naval operation (which will, they claim, make it more easy to achieve centralization in planning and utilization of forces), coordinating them with preparation of transports for the sea crossing and with the crossing proper.

It is believed that such an operation will differ by nature from all other naval operations primarily in that it will be necessary to conduct active offensive actions by various kinds of forces during the entire period of securing sea lines of communication, simulataneously providing continuous cover to convoys and transport vessels at ports of embarkation, during the crossing and at the destination.

In the opinion of foreign experts the amphibious landing operation is one of the principal missions of the navy, since today as never before it is necessary to hit the enemy quickly to the entire depth of theaters of war. In the absence of direct contact between opposing forces, in many cases amphibious landings will constitute the only possible way of shifting

combat operations to enemy territory in order to complete the defeat of the enemy. Amphibious landing operations, particularly in combination with airborne operations, are also dictated, as is indicated by the experience of World War II, by the necessity of ensuring a high rate of advance by forces in coastal areas, by launching resolute attacks into the flanks and rear of the enemy with forces landed from the sea. Amphibious operations may also be required in order to establish a more favorable situation for the deployment, basing and operations of naval forces in high-seas theaters.

Modern amphibious operations constitute vigorous offensive actions by naval, ground and air forces. The fundamental difficulty in organizing such an operation is due to the conflict between the necessity of concentrating landing forces in order to deliver a decisive attack on hostile shore defenses and the demands of dispersal of forces due to the threat of destruction in case of enemy employment of a nuclear strike. It is precisely because of the fear of heavy casualties from such an attack that military experts initially were of the opinion that amphibious operations were irrevocably a thing of the past. But this attitude did not last long. Soon there began a process of improvement of amphibious landing hardware and elaboration of new amphibious operation methods appropriate to nuclear warfare, as well as to local wars involving conventional weapons.

The experience of World War II and subsequent armed conflicts gives some picture of the role, character and scale of amphibious operations under present-day conditions. In World War II approximately 350 amphibious landings were conducted (greatly exceeding the total number over many decades of prior military history). The United States alone built approximately 70,000 amphibious warfare ships and craft of various types: from small landing craft for carrying infantry ashore to large amphibious transports displacing 16-18 thousand tons. One can judge the number of troops, ships and aircraft involved in large-scale amphibious operations from the Normandy invasion, which involved 50 divisions of troops, more than 6000 transport vessels and warships, and approximately 14,000 aircraft.

Substantial changes have taken place since the war in the forces and means employed in conducting amphibious landing operations, changes which to a certain degree can be considered typical for present-day conditions. For example, fire support ships were extensively employed in U.S. amphibious operations in Korea[2] for fire support of the landing troops and to protect minesweepers from coast artillery attack; guided cruise-missiles, embarked jet aircraft, and napalm bombs were employed for the first time. Helicopters proved extremely effective in their new role of assault force delivery vehicle. An important role was played by Marine large units and units, as well as special amphibious transport vessels.

The navy assisted ground forces in the conduct of combat operations in coastal areas directly or indirectly during the performance of all the above-enumerated missions. At the same time it is believed that under present-day conditions special operations by submarines, naval aviation, surface units, shore missile units, Marine large units and units directly in the interests of ground troops are also inevitable. Such operations include the clearing of forces of warships hindering the attack or defense of troops in coastal areas, engagement of hostile amphibious landing forces and landing of friendly amphibious assault forces, disruption of enemy shipping, as well as support of sea transport of reserves and supplies for ground forces.

Foreign experts believe that the main feature of such operations is that they require the organization of precise, comprehensive coordination among all forces: distribution of principal attack objectives and coordination of attack timetables; delimitation of areas and zones of action of submarines, surface units, aviation, shore missile units, ground forces artillery and missile units; establishment of the most advantageous sequence of weapons utilization; determination of time, sectors and axes of attack, procedure of mutual exchange of information and mutual recognition; elaboration of coordination signals; securement of coordinated surveillance of sea and airspace, etc. It is considered essential that all these and other such matters be worked out in detail, for precisely organized coordination is a guarantee of successful assistance to ground forces operating in a coastal area.

Thus it is believed that sea warfare will play an extremely important role under present-day conditions. Therefore the question of the necessity of building a powerful Soviet blue-water navy capable of standing up against any aggressor who possesses powerful naval forces in addition to land armies, air force and missile troops, has become particularly critical in the new situation which has developed since World War II.

The achievements of Soviet science and technology, our nation's constantly growing economic capabilities, tireless concern by the Communist Party for strengthening the defensive might of the homeland, the skill of our scientists and designers, and the selfless labors of our workers, engineers and technicians have made it possible to build a qualitatively new blue-water navy within a short period of time. Successful mastery of new warships, aircraft and weapons has made our navy capable of effectively and efficiently performing any and all missions.

The entire world became convinced of this fact during the "Okean" (Ocean) naval maneuvers whose most important feature was an enormous spatial scope: the area involved included the waters of the Atlantic and Pacific Oceans and the seas bordering on the Soviet Union. The total water area involved in this naval exercise was tens of millions of square kilometers. Large

and diversified naval forces took part in the maneuvers. Reuters, the Associated Press and other news agencies were compelled to admit openly that the Soviet Navy had, for the first time in the history of the art of naval warfare, held an exercise, on the basis of a single plan and schedule, in several oceans and seas simultaneously.

Judging from the statements of top U.S. and NATO admirals and generals, which received extensive coverage in the foreign press, radio and television, the Ocean maneuvers totally dispelled the illusory hopes of the imperialists of all nations that the USSR was incapable of offering them a devastating response in armed combat at sea. The forces of aggression were also able to see with their own eyes that the ships of the Soviet Navy today constitute an impressive restraining factor in the path of military adventure.

FOOTNOTES

1. P. Barto: Flot v atomnyy vek (The Navy in the Nuclear Age), Izd-vo inostrannoy literatury, 1956, page 110.

2. The Americans conducted three amphibious landing operations during the war in Korea, from the spring of 1950 to the fall of 1953: the Inchon landing (September 1950), the Wonsan landing (October 1950), and the Wonsan-Kosong (October 1952).

PEDAGOGICAL TACT
(Problems in the Training and Development of Young Officers)

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It would be difficult to find an officer who does not endeavor to become a competent superior, to establish proper relations with his subordinates, and to acquire the necessary qualities for this, including pedagogical tact. In this article we endeavor to analyze the meaning of the concept "pedagogical tact" and to show the basic ways and conditions for developing it in Soviet officers.

The problem of pedagogical tact (as a portion of the general problem of human relations in society), of the personality of the pedagogue (leader) and his skills was posed and discussed even in the prerevolutionary literature.[1] Soviet general and military pedagogics, in developing this problem, has incorporated the progressive ideas of the past and enriched them with the data of Soviet reality.

In working out the methodological principles of pedagogical tact and in solving its specific questions, the works and practical activities of V. I. Lenin are of permanent significance. The principles formulated by him for the relationships of the leader with the masses have been and will be a sort of moral code for each Soviet leader, commander, or indoctrinator. "...Particular tact, the ability to reach the masses in a particular way in each individual specific instance," "the ability to understand people," the ability "to attract people," to be attentive, responsive, and patient in work with young people -- all of this was considered by V. I. Lenin to be essential qualities for those who lead people, who train and indoctrinate them (Complete Collected Works, Vol 44, p 350; Vol 30, p 70; Vol 45, p 351, and elsewhere).

M. V. Frunze, N. K. Krupskaya, M. I. Kalinin, and A. S. Makarenko also made their contribution to working out the general and specific questions of pedagogical tact, and to showing its significance in the activities of the commander and political worker.[2]

The Soviet military regulations have devoted and do devote great attention to the relations between military personnel and to tactfulness in dealing with them. Even the very first manuals of the Red Army emphasized that "by his responsive and tactful approach, the political leader should unite the Red Army men and constantly indoctrinate in them the qualities of a politically aware, steadfast, intrepid, and disciplined soldier."[3]

"Considerateness, responsiveness, tactfulness and the power of observation" on the part of the command and party organizations were defined by the manual as one of the basic conditions for studying subordinates and influencing them.[4]

The modern regulations, in being a summary of the moral and legal standards for the activities of military personnel, establish that the relationships in the army should be organized on respect, great exactingness and responsibility based upon friendship and comradeship. All military personnel, states Article 40 of the Internal Service Regulations, in their dealings with one another should observe politeness and self-control.

Many scientists including pedagogues and psychologists[5] have studied the problem of pedagogical tact, having shown its important significance in our days. Such attention to the problem has been caused by a number of objective factors in the development of Soviet society, as well as by the profound processes occurring in the armed forces. The scale and complexity of the tasks confronting them place even greater demands upon all the activities of the officers, the generals and admirals, upon the methods of their leadership, and upon mastering a Leninist style of work, with one of the most important features being tactfulness. The formation of highly developed pedagogical tact in the officers is a component of the work in the area of improving control and raising the effectiveness of their service activities.

Pedagogical tact is inseparable from communist indoctrination, from the human relations between people, and the nobility in the conduct of Soviet man. The party, as was pointed out at the 24th CPSU Congress, is taking every measure in order "to create a moral atmosphere in our society which would help to establish in all levels of social life, in labor, and in everyday life a respectful and considerate attitude toward man, honesty, exactingness for oneself and others, confidence combined with strict responsibility, and a spirit of real comradeship." Tactfulness is one of the indicators for the personal qualities of an officer or general and of the level of development of professional ethics and culture which actively influence subordinates.

The changes in military affairs (as a consequence of scientific and technical progress) have posed anew a number of questions related to the relationships between superiors and subordinates, and the raising of effective training and indoctrination as well as the pedagogical skill of the officers.[6] For example, a majority of the skills and abilities involved in servicing modern military equipment entail mental processes. And, as is known, a lack of tact in relationships most often causes harm precisely in the area of mental activity. This means that the very process of mastering the equipment and working with it at present requires a higher level of relationships.

It is also essential to consider the circumstance that each year there is an increase in the number of young persons with a high level of general education, intellectual qualities, and a developed feeling of personal merit. "To be the commanders and indoctrinators of such young people," said L. I. Brezhnev in a speech before the graduates of the military academies on 8 July 1968, "is a complex and, it must be said, delicate matter, and it requires sound special knowledge, a broad cultural viewpoint and pedagogical tact, not forgetting experience in life." In the given instance pedagogical tact operates as a most important component in the military pedagogical skills of the commander, political worker, or engineer and is a necessary condition for raising the effective fulfillment of the functional duties of an officer as the leader, indoctrinator and teacher of subordinates.

The practices of instruction and indoctrination in the Army and Navy indicate that an absolute majority of the commanders and political workers are skillful pedagogues and indoctrinators and achieve good and constant results in military and political training, as well as in strengthening military discipline. Their behavior excels in a high cultural level; they organize their relationships properly and possess highly developed tact. But there are also officers who do not have the necessary level of military pedagogical skill and who permit flaws in the work with the men. This tells negatively upon discipline and in the results of preparing the units and subunits led by them. One of the reasons for this is the inability to organize relationships with subordinates on a correct and pedagogically effective level. This can be seen, in particular, from the letter published in Krasnaya Zvezda and written by an officer: "I began my service in 1967 as a junior lieutenant. At first it was very difficult for me. I could feel my lack of experience and I was still very young. But...soon the platoon...won the title of excellent. Our unit commander at that time was a demanding and responsive officer, a man of great culture and a good heart..." Later on another commander arrived "who at the drop of a hat would belittle and deprecate the personal dignity of an officer before a formation of his subordinates, thereby undermining the officer's authority..."[7]

Pedagogical tact is a delicate and effective instrument for any commander and superior in work with people and in training and indoctrinating subordinates.

What is pedagogical tact? Pedagogical tact is a professional quality of an officer as a leader, teacher and indoctrinator, characterized by the pedagogically effective measure of his relations with subordinates and influence on them. It expresses a sincere respect for the individual and the ability to control oneself and observe a pedagogically effective moderation in applying training and indoctrinational effects.

An officer's tact is manifested in his deeds, his actions and various forms of human contact and makes it possible to reach the most complex "mechanism" of his subordinates and their internal world (the translation from the Latin word "tact" literally means "contact," "action," or "influence").

Tact also consists of creative inventiveness and pedagogical resourcefulness which are based upon psychological and pedagogical knowledge, experience in life, as well as developed moral and intellectual habits and abilities.

Pedagogical tact, like any social-psychological phenomenon, has its own structure. The essential features of the external manifestation of tact are: demandingness without coarseness and petty interference; influence in the form of orders, suggestions, cautions, and proposals without pressuring and belittling the personality of the subordinate; the ability to express instructions, orders, and even a request without disdain and entreaty; the ability to train subordinates without overemphasizing one's superiority in knowledge and skills; the ability to listen to subordinates (other persons in a conversation), without expressing indifference or one's superiority; a seriousness of approach to answering a subordinate regardless of his correctness and intelligence; a simplicity of human dealings without allowing familiarity; an adherence to principles and tenacity without obstinacy; attentiveness and responsiveness to subordinates without excessiveness; a sense of humor which does not belittle the dignity of an individual.

All this is just the basic structural elements of an officer's pedagogical tact. The limits of action for the basic features of tact are very flexible. They develop along the line of transition from the positive content of tact to the negative qualities which refute it. The dialectical relationship between them is regulated by pedagogically expedient moderation in applying indoctrinational actions and by the best combination of form and content. For example, the instructions and orders of a superior are an indispensable condition for his activities. However, this form of relation has nothing in common with rudeness, disdain, or importunate exhortation which lead to a lack of tact. In no instance should tactfulness become liberalism or conniving.

The tactfulness of an officer as a character trait is a complex mental formation which possesses definite stability and at the same time flexibility. In terms of its direction, tactfulness operates on many levels and serves as an indicator of the level of development of the officer's personality, his intellect, will, emotions and overall culture.

Ideological conviction, loyalty to the ideals of communism, high principledness and self-criticalness comprise the basis of an officer's

tactfulness and his tact in relationships. An officer who has learned to creatively apply Marxist-Leninist theory in practice more quickly and correctly will determine the line of his conduct and attitude toward people and will not permit hurried conclusions and unanalyzed actions. The high responsibility for the assigned job will not allow him to be guided by personal sympathies and dislikes in his relations with other people. For him, duty and the interests of service are above all else. The 24th CPSU Congress emphasized that "the most advanced ideology becomes a real force only when, in holding sway over the masses, it impels them to energetic actions and determines the standards of their daily conduct."

At the same time, the pedagogical tact of an officer depends upon other personal qualities such as thinking, speech, emotional and volitional character traits, pedagogical imagination, the power of supervision, and so forth. Since these questions have been examined in our journal,[8] we will deal briefly only with certain of them which relate to the given subject.

Pedagogical power of observation is an important means for studying subordinates and for determining their interests, capabilities, their psychophysiological and psychological-morale states. An officer who possesses such a quality more quickly spots the individual traits of a subordinate and analyzes them, notes the subordinate's experiences and attitudes, as well as the causes and motives of behavior. Understandably, in terms of its form, the power of observation should be tactful. Excessive observation or the frequent reminding of the same matter cause tension in relationships and, moreover, cause only harm.

Of substantial significance in the manifestation of tact are clarity, accuracy and flexibility in an officer's thinking, as well as his ability to analyze the behavior of subordinates and their attitude toward fellow servicemen, to draw objective conclusions from their behavior, and to give a correct evaluation for the actions and knowledge of the men. At the same time pedagogical tact cannot be reduced, as they say, to a purely calculated act. Often it is essential to show a resourcefulness based upon pedagogical, service and human experience. Certainly, for each human and service situation, there are not the corresponding theoretical prescripts and explanations in the manuals, regulations and guides.

An officer's speech acts together with his thinking. Depending upon its content, expressiveness and form, speech influences the feelings, will and awareness of subordinates. This is why, having arrived in a unit or on a ship, a lieutenant constantly makes certain that his speech is meaningful, clear, accurate, moderate and appropriate to the occasion.

Analysis of the service activities of officers with developed pedagogical tact indicates that an inherent quality is a high level of culture and

good speech in all its types, that is: command, propaganda, and daily speech. Research has also disclosed another feature. People with a low level of tact show poor (caused by a limited vocabulary) and monotonous speech and an inability to express their thoughts simply and accurately. A low cultural level can also be seen from the fact that their speech is strewn with coarse words and vulgar expressions. And "bad language," as V. I. Lenin pointed out, "is merely proof that a person has no argument" (Complete Collected Works, Vol 11, p 144).

Pedagogical imagination makes it possible to create an understanding of the internal world of subordinates, their mental state, and the possible reasons for one or another deed. An exaggeration or understatement of the notions about a person leads to erroneous judgments and actions, and hence, to violations of pedagogical tact. The breadth and degree of accuracy of the notions entail the pedagogical flexibility of the officer's thinking and a rapid orientation in the arising situation.

Among the emotional and volitional character traits which influence pedagogical tact, we would particularly isolate the moral feelings such as the feelings of socialist humanism, comradeship and friendship, responsiveness, attentiveness and sincerity, honor, conscience, dignity, and so forth. Among the important elements in the psychological content of pedagogical tact we would also put the volitional character traits of an officer, that is: purposefulness, tenacity, self-possession, restraint, a sense of balance and self-control.

The officers who possess these qualities control themselves and can manage their actions and deeds. Nervous or easily excited people are most often uncontrolled and are guilty of tactlessness and vulgarity.

But poorly developed self-control and restraint cannot be viewed as merely a manifestation of nervous excitability. This is the result of the indoctrination and self-indoctrination of a person. As the mentality of a person is improved, he acquires the habits of self-restraint and the ability to control his conduct and mood. "It is essential to check oneself at each step, and this should become a habit...as a person without restraint is a ruined machine."[9]

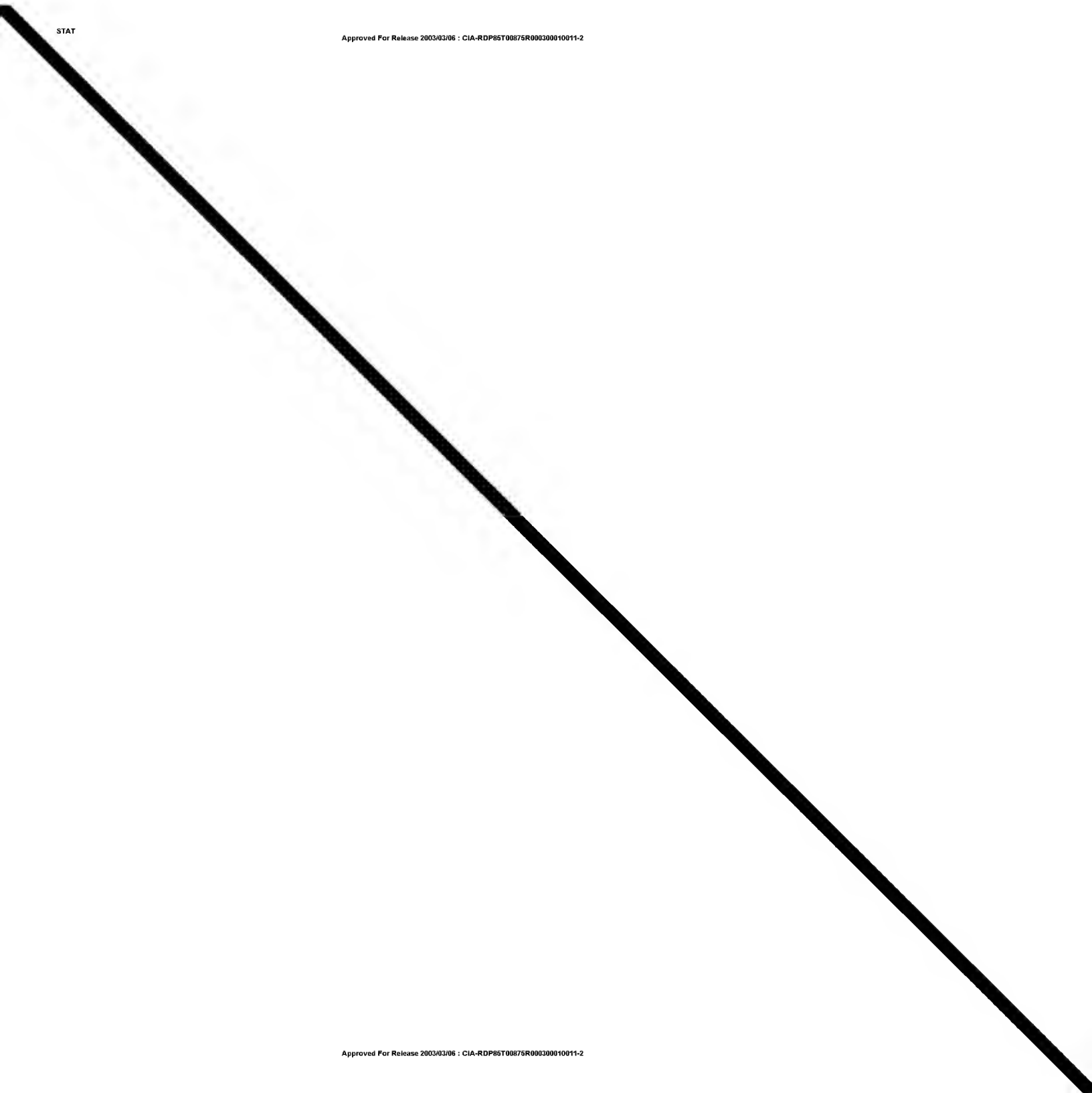
We should point out that pedagogical tact does not negate the emotional excitement of an officer. A commander or a political worker cannot be indifferent to the misdeeds of subordinates, to vulgarity or other amoral phenomena. Tact in no way is synonymous with passive even temper on the part of an officer. It means the ability of an indoctrinator not only to avoid conflicts with subordinates, but, if need be, to enter a conflict, to quickly and correctly settle arising contradictions and to express one's attitude on what has occurred. In the apt expression of A. S. Makarenko, an indoctrinator should not act as a dispassionate mentor who solemnly

preaches to the violator of discipline. It is important that the anxiety, the experiencing of successes and failures, and the excitement of the superior be combined with just exactingness, responsiveness and concern, as well as self-control over the forms of contact with subordinates. It is essential that such excitement not assume an antipedagogical character.

Pedagogical tact is also manifested in the diversity of an officer's relations with the personnel and in the various types of functional activities. In training it helps to activate the attention and mental work of the trainees, and to establish mutual understanding with the audience, that is, to create in the exercises a "psychological climate" which raises their effectiveness. In indoctrination it raises the role of the employed methods for affecting the subordinates (conviction, commendation, example, exercise, or coercion). It helps to establish and constantly maintain mutual understanding with the collective and the party and Komsomol organizations, to influence the mood of the men, to resolve arising "psychological barriers" and conflict situations, to develop discipline in intractable subordinates, and to work with "pedagogically neglected" youths who before induction were under the influence of persons with low moral qualities.

Pedagogical tact is also of substantial significance in the course of controlling and leading subordinates, in helping to develop initiative and creativity in the men in carrying out service duties and in overcoming the difficulties of service. Where an attempt is made to lead by using vulgar words or shouting, inevitably there are negative phenomena, and in particular, altercations as a "protective" response. For example, analysis of disciplinary practices in one of the units showed that one-quarter of the altercations had arisen when there had been tactlessness and crudeness shown toward subordinates and a nervous tone. Understandably, the pedagogical tact of an officer excludes such methods for controlling and leading men; it improves the authority of the commander, it raises the effectiveness of control and accelerates the development of a young officer and his adaptation to service life.

The precise and unfailing observance of the requirements of the oath, the regulations, orders, instructions and manuals is a guarantee for such development and successful indoctrination. In fact, subordinates inevitably see how their commander carries out his duties and to what degree his words conform to daily actions and deeds. In truth, they cannot always tell the officers about failures, oversights, or lack of tact, but, as they say, this does not change the essence of things. From what has been said, the indisputable conclusion follows that tactfulness must always be reinforced by personal example and the commander should always set the example for subordinates.



It is difficult to overestimate the significance of pedagogical tact in the process of the officer's dealings outside of service. Tact helps to establish and maintain friendly relations with comrades as well as to indoctrinate and develop the habits of tactful conduct among the members of his family.

Pedagogical tact is manifested uniquely in each officer depending upon his inclinations, temperament, character, capabilities, human experience, and other individual properties and qualities. A comparison of individual differences has made it possible to establish and conditionally isolate the following levels of tact: highly developed, developed, and poorly developed. Here the basic criteria were: the breadth, stability and pedagogical effectiveness of tact, that is, the depth of its indoctrinational effect and the external form of manifestation.

An examination of these questions requires a special article. We would merely stress that the officer with highly developed pedagogical tact even in the most difficult situations is discreet in his dealings with subordinates and observes the established form of conduct, harmoniously combining professional and emotional contact in his relationships. His tactfulness is a moral habit and he simply cannot establish his relations otherwise.

A low level of pedagogical tact is explained both by a lack of upbringing and flaws in general cultural development as well as by factors of an emotional and volitional sort (self-control), by an inability and sometimes lack of desire to overcome unnecessary excitability and lack of restraint, or to exercise strictest self-control over one's deeds and actions.

We would also point out that the level of tact is flexible. Depending upon the environment, the conditions and the strength and constancy of indoctrinational actions, one or another level can be reinforced, strengthened and improved, or, on the contrary, can decline and disintegrate. Consequently, the problem of pedagogical tact (the ways and methods for developing and maintaining it) is always of practical significance for each officer, general or admiral, regardless of his service position and age. This problem is particularly important for the lieutenants who have arrived in the troops from the schools and are just getting started in the units and on the ships.

The content, essence and direction of pedagogical tact are determined by the socioeconomic conditions, the nature and purpose of the armed forces. Thus, in an exploiting society, the class contradictions, social inequality, and the difference of goals and interests between command and the rank and file objectively give rise to mutual mistrust, alienation and outright hostility between the military personnel. Naturally, the

ruling classes do everything in order to prevent an exacerbation of antagonism in the army, to keep it in their hands and conceal the social essence of the relationships between superiors and subordinates. In the system of "human relations" which has been specially created for this purpose, the bourgeois military pedagogues and psychologists have endeavored to inject a number of general ethical standards such as "being attentive," "showing concern," "know how the subordinate lives," and so forth. All these procedures are a component of the well-organized system of indoctrination of the military personnel but which is alien in its content and purpose to the masses of soldiers.

Relationships in the Soviet Armed Forces are organized on a completely different social basis. They are based upon socialist social relationships. The Soviet soldiers, officers, generals and admirals are brothers in class and people of a single ideology, common political convictions and aspirations. They are vitally interested in the cause of defending the socialist homeland. This great goal conditions the unity of actions in all levels of the military organism, unites the superiors and subordinates, and influences command and obedience, because the power of the commanders expresses the will of society, and the interests of this society ultimately are the interests of each serviceman. The humane relations between Soviet military personnel, their mutual respect and great demandingness of one another are reinforced by the military regulations which reflect the spirit of our ideology and the demands of the moral code of a builder of communism. This is the foundation on which the tactful relationships between military personnel are based. But it is essential to bear in mind that the objective conditions in and of themselves do not automatically lead to the formation and development of pedagogical tact as a quality of an officer's personality. Here it is essential to have purposeful and concrete work by the superior chiefs and the party organizations, and particularly effort on the part of the officer himself in the so-called self-improvement of the individual and the development and polishing of character qualities.

The indoctrination of the basic qualities of pedagogical tact and tactfulness as character traits is achieved not bit by bit, but rather constantly. Even K. D. Ushinskiy pointed out that pedagogical tact is not something inborn, but is developed constantly in a person as he lives and observes and analyzes his own activities.[10]

The formation and development of pedagogical tact are not an instantaneous act, but rather an internally contradictory and protracted process, the complexity of which is predetermined by a number of factors influencing it. These factors can conditionally be divided into external and internal.

The external factors are: the sociopolitical relations, the dominant ideology and morality, domestic and service conditions, relations with

fellow servicemen, proper order in the unit and on the ship, the type and character of duties, and so forth.

The internal factors include the particular features of the officer's individual qualities and the occurrence of mental states (self-control over actions and deeds), habits and skills of independent work, the developed system of self-improvement, and habits of tactful conduct.

In being in a constant interaction and relationship, these factors have a positive or negative effect upon the process of the formation and development of pedagogical tact. Consideration and elucidation of the proportional weight of each of them provide concreteness and certainty in the work of indoctrinating tactfulness and pedagogical tact. This is developed by overcoming contradictions which differ in terms of their character and content. These contradictions are: between the existing knowledge (overall preparedness) and the experience of daily conduct; between an awareness of what must be done and how and practical actions; between the assessments of the commander and comrades and one's own assessment of personal qualities. Here also one should put the contradictions related to the officer's conduct in different conditions and situations, and so forth.

A knowledge and understanding of the nature of these contradictions on the part of the indoctrinators and persons being indoctrinated are the condition for resolving them. The task of the indoctrinators is not to suppress but rather to bring out the contradictions and to indicate the ways and means for eliminating all that impedes the formation and manifestation of pedagogical tact.

The bases of tact are developed in a person in the family, during school, and in contact with one's associates. The military school is of particular significance in the life of an officer. Attendance at the school is characterized by intense learning of how one must behave in one or another service or training situation and how to organize one's relationships. Here the personality of the indoctrinator has a decisive role to play. For this reason there must be a careful selection of the military pedagogues for the appropriate positions, their pedagogical preparedness, as well as high demands upon their activities and conduct.

Aside from the environment and the situation in a military school, positive experience can also be gained from the elaboration and assimilation of the course "Professional Ethics of a Soviet Officer," as well as the inclusion of the subject "The Essence of Pedagogical Tact and Its Significance in an Officer's Activities" in the program of military pedagogics and psychology. Along with solving educational problems the personnel of the military institutions of higher learning must do more work in the area of practical acquisition of the skills and abilities of tactful behavior, in making

rational use for this purpose of all the possibilities of the schools and academies as well as of the tours of duty in the troops.

The initial period of service in a unit, on a ship, staff, in an institution, and so forth, plays a great role in developing an officer's pedagogical tact (as the tact of a commander, teacher and indoctrinator of subordinates). For a young officer the familiar pattern of life is changed. He assumes new duties and relationships, he becomes acquainted with superiors and subordinates, and he masters a style of work. In turn the superiors and subordinates carefully study and sometimes test the lieutenant. This raises the psychological stress and requires on the part of the new man restraint, self-possession and tactfulness in conduct and activities. And here it is very important to help an officer find a correct line of behavior and relationships, or, as they say, to put a man on the correct path.

Analysis of the advanced pedagogical experience of commanders and political workers as well as the data of the conducted experiment have shown that in the development of pedagogical tact, a primary role is played by the following:

a) The all-round ideological conditioning of the officers and the arming of them with knowledge from the area of party political work, military pedagogics, psychology and ethics;

b) The purposeful development of positive motivation in carrying out service duties, the development of highly moral feelings, and the encouraging and acquisition of habits, skills and abilities of tactful behavior;

c) The organization of service activities meeting the requirements of the military regulations and the systematic regulation of service and nonservice relationships between the military personnel;

d) Constant and consistent independent work by the officer to develop tactfulness and to form pedagogical skills.

From what has been said, it follows that the process of indoctrinating and developing tact is a component in solving the overall question of developing the personality of an officer as well as his ideological and general cultural development. However, the professional training of an officer as a leader, teacher and indoctrinator is determined not only by these qualities, but also by specific knowledge, abilities and skills. For precisely this reason the officer needs special psychological, pedagogical and ethical knowledge. The range of this knowledge would include: the essence and social bases of pedagogical tact and its significance in

military activities; the psychological prerequisites and structure of tact, the basic factors influencing the process of its formation and development; the methods of studying the individual qualities of soldiers and the particular features of indoctrinating "difficult" subordinates; the role of the commander's personal example in motivating and stimulating the tactful conduct of the men; the significance of commendatory and punitive measures in developing the skills and abilities of tactful conduct; the specifics of the pedagogical effect of the party community and the officer collective; the methods of the officer's independent work in the area of forming and developing pedagogical tact, and so forth.

It is quite apparent that knowledge in the area of educational psychology and other sciences as well as the learned demands of military ethics, regulations and pedagogical tact must be embodied in habits and abilities, in a standard of conduct, and as a permanent character trait of each commander and political worker.

The process of acquiring the skills and habits of tactful conduct occurs in two ways: "spontaneously" (in the course of daily life and activities of an officer and in his dealings with other people) and planned, that is, by a special, purposeful pedagogical action. The second way is significantly more effective than the first and presupposes a complex of indoctrinational work: 1) the methods and means for forming positive motives of behavior, for indoctrinating feelings, and acquiring the habits and abilities of tactful conduct; 2) the encouraging of tactful conduct, predominantly by the methods and means of evaluating actions.

The activities of the commanders, political workers and party organizations in this area are of important significance.

The influence on the young officers occurs by helping them in correctly allocating their time, in releasing them from excessive workloads, in mastering work procedures with the category of "difficult" subordinates, and in effectively solving other questions related to service activities and their personal life. Here also a role is played by the work of generalizing and introducing into practice the experience of officers with highly developed tact, as well as critical analysis of the conduct of those who are tactless (vulgarity, conceit, and so forth). Along with the general system of indoctrinational measures, differentiated measures are also required for the given category of officers. For one individual there may be stricter supervision and greater responsibility for each type of deviation from the set standards, another may need help in mastering the educational psychology and ethical knowledge, a third may need to improve his attitude toward the military pedagogical profession, a fourth -- recommendations to work harder on acquiring skills and abilities in controlling his conduct, a fifth -- the creation of the necessary conditions for labor and recreation, and so forth.

Of course, self-education, the desire to constantly improve oneself and to achieve a set goal are irreplaceable in the means and methods for developing tactfulness. As independent, systematic and conscious activity by an officer, this is aimed at developing and improving tactfulness as well as at overcoming tactlessness, vulgarity and a lack of self-control. The development of one's will and intellect and the indoctrination of moral feelings and other qualities, which comprise the psychological basis of tact, help to eliminate shortcomings.

In the process of self-indoctrination of tactfulness, also effective are such methods and procedures as: self-conviction, self-control, self-supervision, self-criticism and self-punishment; a creative attitude toward service (the acquiring and thorough analysis of one's own experience and the advanced experience of comrades in training and indoctrination); the development of critical analytical methods of thinking which make it possible to correctly assess phenomena, various instances and situations in work with subordinates, to draw the proper lessons and to make broad generalizations and conclusions for the future.

In solving the designated problem an important role is played by strict exactingness on the part of the collective, the party and Komsomol organizations. Among the officers there should not be a tolerant attitude toward instances of tactlessness. All instances of rudeness, particularly in terms of subordinates, should be analyzed both on the command and party levels. We do not have the right to forget the social and political essence of military indoctrination in the Soviet Armed Forces, and the purpose of our military personnel.

The collective also plays an important role in forming public opinion. This role is higher where the commanders, political workers, party organizations and officer collectives act in a close and coordinated manner on developing the necessary public opinion, where they direct it to overcoming negative phenomena and create a situation of intolerance for any type of crudeness and tactlessness. This helps to unite the collective, to create an atmosphere of mutual understanding and relationships of comradeship and friendship, and to raise each officer's feeling of responsibility for his own conduct and the situation in the subunit, unit, or on the ship.

To develop pedagogical tact means to maintain proper relationships between superiors and subordinates. In the apt expression of M. I. Kalinin, the serviceman "is completely indoctrinated primarily by those relationships which exist between people and, in the given instance, in military life, particularly by the attitude of the officer personnel toward the Red Army masses."[11] Military service is strictly regulated and the relationships of seniors and juniors in rank, superiors and subordinates are defined and set by law. The task is not only to know the provisions of the

regulations, but also to carry them out most strictly and to follow them constantly. The requirements of the regulations are the primary basis for tactful relationships between military personnel and for the pedagogical tact of an officer.

As for the lieutenants who have recently arrived in the troops from the schools, for them the personal example of a senior superior is indispensable. They often imitate the attitude of their commander to subordinates and associates. An example of even-temperedness, restraint and self-possession by a superior, and his high level of conduct not only help to find a correct way out of conflict situations and have a positive effect upon carrying out service and training-indoctrination tasks, but also help to indoctrinate the same qualities in the young officers, sergeants, soldiers and sailors.

The personal example of a superior is also indisputable in instilling in the officers positive sources of conduct and feelings of comradeship and in acquiring the skills and abilities of tactful conduct and the exemplary observance of the military regulations. He becomes an impressive force in developing pedagogical tact in observing a unity of word and concrete deeds and in combining constant exactingness for himself and subordinates.

In conclusion, we would stress that the development of pedagogical tact depends upon many circumstances such as: the conditions under which the officer serves; his military professional skills and educational psychology training; his general education and culture; the exactingness of commanders, political workers and party organizations; the results of self-indoctrination and the improvement of his personality. The forms and methods of indoctrination which correspond to one or another situation also help to develop tact. But the main thing here depends upon the officer himself, that is, upon his desire and ability to always follow the requirements of the oath and military regulations, to observe ethical standards in his relationships, to be an example for subordinates in training and discipline, and to devote himself wholeheartedly to service.

FOOTNOTES

1. V. G. Belinskiy, Izbr. ped. soch. (Selected Pedagogical Works), Izd-vo Akademii pedagogicheskikh nauk RSFSR, 1953, pp 87-97, 313, 340, 386-392, 606-612, 630-647; N. A. Dobrolyubov, Izbr. ped. proizv. (Selected Pedagogical Works), Izd-vo Akademii pedagogicheskikh nauk RSFSR, 1952, pp 67-68, 131, 135, 147; N. I. Pirogov, Izbr. ped. soch. (Selected Pedagogical Works), Izd-vo Akademii pedagogicheskikh nauk RSFSR, 1952, p 633; K. D. Ushinskiy, Sobr. soch. (Collected Works), Vol 8, Izd-vo Akademii pedagogicheskikh nauk RSFSR, 1950, pp 46-48; A. V. Suvorov, Polkovoye uchrezhdeniye (Regimental Services), Voyenizdat, 1949,

pp 68-69; M. I. Dragomirov, Izbr. trudy (Selected Works), Voyenizdat, 1956, pp 396, 650, 656, 658; Khrestomatiya po russkoy voyennov istorii (Reader on Russian Military History), Voyenizdat, 1947, pp 238, 398; N. D. Butovskiy, O sposobakh obucheniya i vospitaniya sovremennogo soldata (On the Methods of Training and Indoctrinating a Modern Soldier), Vol 1, St. Petersburg, 1908, pp 5, 78.

2. M. V. Frunze, Izbr. proizv. (Selected Works), Voyenizdat, 1965, pp 51-55, 263, 487-490; N. K. Krupskaya, Ped. soch. (Pedagogical Works), Vol 3, Izd-vo Akademii pedagogicheskikh nauk RSFSR, 1959, pp 265-266, 639-641; M. I. Kalinin, O kommunisticheskom vospitanii i voinskom dolge (On Communist Indoctrination and Military Duty), Voyenizdat, 1967, pp 222-223, 422-423, 619; A. S. Makarenko, Soch. (Works), Vol 5, Izd-vo Akademii pedagogicheskikh nauk RSFSR, 1958, pp 186, 233-234, 267-276.

3. Boyevoy ustav pekhoty RKKA (Infantry Field Manual of the Worker-Peasant Red Army), Part II, 1927, p 103.

4. Ibid., p 107.

5. A. G. Bazanov, Pedagogika (Pedagogics), Voyenizdat, 1964; V. Gavrilyuk, "The Pedagogical Tact of an Officer," in the collection O Pedagogicheskom masterstve ofitsera (On the Pedagogical Mastery of an Officer), Voyenizdat, 1960; F. N. Gonobolin, Kniga ob uchitele (A Book on the Teacher), Izd-vo Prosveshcheniye, 1965; I. V. Strakhov, Psikhologiya pedagogicheskogo takta (The Psychology of Pedagogical Tact), Izd. Saratovskogo universiteta, 1966, and others.

6. This subject is taken up in the article by I. Pugin, "Military Pedagogical Skill," Voyennaya Mysl', 1971, No 3.

7. Krasnaya Zvezda, 1 September 1970.

8. Voyennaya Mysl', 1970, Nos 6, 7, 8 and 11; 1971, No 3.

9. A. S. Makarenko, Soch., Vol 5, p 217.

10. K. I. Ushinskiy, Sobr. soch., Vol 8, pp 46-48.

11. M. I. Kalinin, O kommunisticheskom vospitanii i voinskom dolge, p 625.

PSYCHOLOGICAL ASPECTS OF SURPRISE*

(Following is an abridged translation of an article by Maj Mgr Z. Paleski, to supplement the material on problems of surprise published in the May issue of this journal)

Military history contains numerous examples of diversified forms and methods of achieving surprise, which have played an important role in engagements and battles. Some of them have been so successful that we are still amazed even today at their effectiveness and the exceptional knowledge of human psychology displayed. Sometimes armies which were smaller in numbers and more poorly armed have defeated a more powerful adversary by utilizing the element of surprise.

Surprise will play an even greater role in the war of today. This follows from an analysis of the character of modern military operations and utilization of the most advanced weapons in these operations. We should note, however, that in spite of the increased importance of this problem, corresponding research and theoretical elaborations in this area are being conducted to an insufficient degree. Many publications (including foreign) which deal with the problem of surprise examine primarily the following questions: how can the adversary be taken by surprise and what should one undertake in order not to be put into the same situation? But nothing is said about what should be done if the adversary has already taken one by surprise. It is true that a positive solution to the second item essentially excludes the third, but this does not free us from the necessity of analyzing the very essence of surprise and elaborating measures to lessen or eliminate its consequences.

We shall attempt to analyze this question from the standpoint of psychology. In this respect surprise can be defined as a unique state of consciousness caused by the sudden appearance of an unexpected situation which possesses specific significance for one and demands swift response actions of which one is not fully capable (prepared). Proceeding from this definition, it seems to us that surprise should contain five elements, which in a case of total surprise will occur as an aggregate.

First of all only a person who possesses the ability to comprehend and reason as well as to orient himself in respect to the realities of his environment can be taken by surprise (he whose consciousness has been disturbed perceives no surprise). The effect of surprise is manifested in the form of an enormous psychological strain caused in a danger situation

* Mysl Wojskowa, No 5, 1970.

by a sense of "emptiness" in one's head (thoughts and ideas have "fled"), as well as impulsive chaotic actions.

Second, the sudden occurrence of an unexpected situation or factor causing it is important. The time factor is extremely important in this, for the state of surprise may be only of brief duration, since adaptation in man takes place very quickly, and restoration of the structure of mental processes disrupted by surprise requires little time.

Third, surprise is engendered by an unexpected situation when one is not prepared for it. The greater the degree of unexpectedness, the more powerful the surprise. Unexpectedness per se, however, is not a sufficient condition for the manifestation of surprise, particularly if one assumed in advance the possibility of just such an event (phenomenon) and was appropriately prepared for it.

Fourth, a situation causing surprise should have some meaning for a person; the greater this significance, the greater the degree of surprise. Therefore surprise presents a particular threat on the battlefield, where it as a rule determines men's fate, and not only of individuals but of an entire subunit (unit).

Fifth, one can speak of surprise only when a situation requires swift action. Any unexpected event, if it does not cause substantial behavior changes or some new reaction, can be ignored.

Two problems connected with our subject proceed from such an approach to the substance of surprise: a) psychological consequences of surprise; b) behavior of the individual taken by surprise.

Particularly important among the psychological consequences of surprise on the battlefield are the following:

loss of time. A person who has been taken by surprise as a rule becomes confused, and this brief period of inactivity, in view of present organizational-technical capabilities, may be quite sufficient for the adversary to carry out a specific combat mission;

disorganization of mental functions. A person's perception of information is disrupted, and the thought process becomes illogical and chaotic. Memory lapses occur, with a simultaneous amplification of imagination, which dominates other mental functions;

disorganization of the actions not only of individuals but of entire groups as well. Some individuals may experience a slowing down of motor capabilities, to the extent of total inactivity (so-called stupor), or an

excited state, leading to a large number of unnecessary, stereotype in the past, motions. Under the effect of surprise a unit may become confused and lose the capability to fight;

powerful mental strain assuming various forms. In cases of repetition it may lead to mental exhaustion and other mental disturbances (neuroses, etc);

a sense of fear, which in a large group of persons can assume the nature of panic, a particularly dangerous phenomenon on today's battlefield (it is understandable that surprise is considered one of the main conditions for the genesis of panic);

weakening of troop morale, in particular an undermining of confidence in received information and in the warning system as a whole, which in modern warfare plays an enormous role, including psychological.

As regards the second of the above-mentioned problems -- behavior of the individual taken by surprise -- it is quite frequently ignored in discussions of surprise. At the same time it is very difficult to state how a person taken by surprise should act, for it is difficult to predict the situation in which he will be compelled to act. In addition, different manners of manifestation and forms of surprise evoke different reactions.

Examining this problem in a very general manner, it is expedient to specify two states in which an individual can find himself at the moment of surprise: when he has time to react calmly to what has occurred, and when there is no such time. The former situation is not typical of military conditions, and therefore it can be ignored. There are two possible lines of behavior in the latter case: either an individual will quickly respond to what has occurred and will proceed as he should in such a situation (although this does not signify that such a reaction will indeed be correct and not merely similar to the correct behavior), or he will temporarily refrain from any action whatsoever and, if conditions permit, will attempt to take cover, in order to reduce the danger.

Obviously the above decision (manner of action) cannot be considered complete and sufficient, but merely makes it possible to gain time in order to "collect one's thoughts," to dissipate the initial strong mental stress, to diminish a sense of fear, etc. This will also make it possible to avoid hasty, frequently erroneous actions which may prove to be more harmful than the immediate effect of surprise. This line of behavior will constitute a point of departure for subsequent actions, which should always begin with a conscious situation analysis on the basis of the maximum possible quantity of reliable information on the current situation. Careful

examination of all its elements and possibilities comprises an essential prerequisite for reaching new decisions and actions corresponding to the given situation.

In all cases the first minutes of the effect of surprise are the most important. Here self-control is particularly essential, sometimes if only for the purpose of waiting a certain period of time and thus diminishing the immediate psychological effect of surprise. Therefore all military personnel should be clearly aware of the importance of these decisive minutes (and even seconds) and be appropriately prepared for them. In other words, the best way to avoid being taken by surprise is to prepare for it in advance. The popular expression that "the best cure for surprise is not to allow oneself to be taken by surprise" well emphasizes this idea, although it does not provide a practical solution to the problem.

We in turn shall limit ourselves to a few recommendations of a psychological character, which can be reduced to the following.

1. Elimination or attenuation of the effect of factors promoting the manifestation of surprise, such as: time (protracted troop inactivity); distance (the potential danger is far away); absence of a real danger (it is not known whether it in fact exists and of what it consists); distraction of attention (the adversary executes numerous decoy maneuvers, simulating a threat on various axes); unfounded self-confidence, combined with ignoring of information and poor personnel psychophysiological state (considerable fatigue, weakening of the will to fight, etc), situation uncertainty in combination with terrain disorientation.

2. Increase in military knowledge and acquisition of combat experience. It is difficult to take by surprise a person who is highly knowledgeable. This applies in equal measure to troops on the battlefield. The more a soldier knows about the enemy, the more difficult it is to take him by surprise. We are speaking not only of general knowledge but also a careful study of everything the enemy has at his disposal and which can promote his achieving the element of surprise. An important role in attenuating the effect of surprise is also played by combat experience. It is a well-known fact that it is much more difficult to gain the element of surprise on combat-experienced soldiers than is the case, for example, with new recruits, who initially become confused in almost any unfavorable situation on the battlefield.

3. The ability to adapt quickly to a situation. These qualities are linked to a typical human psychological capability -- flexibility of thinking. Since normally surprise cannot be placed within a specific pattern, there can be no pattern of counteraction (correct reaction). Actions following a prior-learned pattern frequently proceed from inflexible,

inert thinking, and even if such action is correct in general, in a specific situation it may prove ineffective. Closely linked to this is the necessity of flexible planning. The more rigid and rectilinear (single-variant) a plan, the greater the probability that something unexpected will arise, and the more difficult it will be to react correctly to it in the future.

4. Constant combat readiness and generality of actions. Surprise is closely linked with combat readiness; one can even say that one is the reverse of the other. These two phenomena are inversely proportional: the lower the degree of troop combat readiness, the greater the probability that the enemy can take troops by surprise, and vice versa. The endeavor to ensure continuous combat readiness is primarily an endeavor to avoid surprise with all its serious consequences. Combat readiness is a very complex phenomenon which constantly occupies the center of attention of modern combat training. It is characterized by two groups of factors: external and internal. It is the aggregate of these two groups which comprises troop combat readiness. Very frequently misunderstandings arise due to the fact that combat readiness is reduced only to one of its aspects -- the "external." At the same time inner preparedness to act is very important, since it determines the possibility of utilization of all those elements which comprise troop external preparedness.

A soldier's inner preparedness, which is of primary interest to psychologists. is first and foremost his desire and ability to act. Desire to act is connected with comprehension and appropriate assessment of the purpose of actions, that is with an individual's moral-political countenance, while ability involves one's knowledge, skills and experience.

The forming in personnel of readiness to act, which plays a positive role in counteracting surprise, should take into account both aspects of inner preparedness, which mutually supplement one another and are equally important on today's battlefield.

Generality of action consists in securing the possibility of utilizing everything at the disposal of the fighting man, in any situation and under all conditions.

5. Knowledge of the essence of surprise and practical training for action when surprise occurs. An important role in preparing men for action under conditions of surprise is played by a theoretical study of the essence, causes and consequences of surprise, as well as methods of resisting surprise. This applies first and foremost to the area of mental-psychological experiences, which can suddenly seize a person. Knowledge of the essence of surprise makes it possible to control oneself better in a critical situation. It is evidently necessary constantly to hold in one's consciousness the conviction that in modern military operations,

which will involve both front and rear areas, there will be a great possibility of being taken by surprise by the adversary. Anticipation of surprise will reduce its negative consequences (see figure).

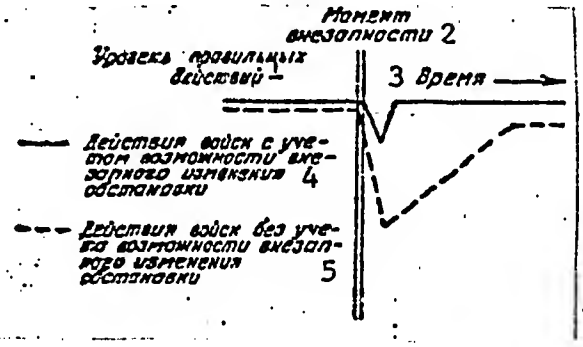


Figure. Nature of change in troop actions under the effect of surprise.

Key to figure: 1 -- level of correct actions; 2 — moment of surprise; 3 -- time; 4 -- troop actions taking into account the possibility of a sudden situation change; 5 -- troop actions with failure to take into account the possibility of a sudden situation change

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Also of great importance is practical training of military personnel during the course of which trainees are faced with unexpected situations. For this purpose it is recommended that elements of surprise be introduced into routine training classes, or that special exercises be held, aimed at accustoming personnel to unexpected situations. Such exercises will promote increased vigilance on the part of personnel and their preparedness for an abrupt change in the nature of actions if the situation demands.

6. The selection process, psychological selection of cadres. In certain cases it is advisable to employ special methods of selecting personnel who due to the nature of their work will be compelled to react quickly to sudden situation changes presenting a maximum danger. First of all these should be individuals with a strong nervous system, capable of withstanding various unexpected events. In addition they should possess quickness of thinking and reaction, the ability to obtain their bearings in a situation and to predict the course of events, to make instantaneous logical conclusions and to make fast decisions; they must possess a sense of responsibility, coolness, and the ability to shift their attention quickly. Particular attention should be focused on developing these qualities in training command and technical cadres.

The problems presented here in concise form, problems connected with the psychological aspect of surprise in military operations, require further investigation and study. Experience and syntheses drawn from other areas of activity are unlikely to be useful when applied to the armed forces, for in no other area of societal activity is surprise the objective of those who possess enormous manpower and material resources, and in no other area of activity does surprise bring such substantial and tragic consequences. Therefore this problem should become the subject of extensive, comprehensive investigation by various military specialists, including psychologists.

The endeavor to avoid surprise or to neutralize the serious consequences of surprise on today's battlefield is a prime task of all armed forces personnel, from private to general.

Translated by Col I. Andrushkevich

AMPHIBIOUS LANDING OPERATIONS IN THE PLANS OF THE PENTAGON*

Capt 2nd Rank Ye. Kondrat'yev

Types of Operations

In accordance with the classification adopted in the United States, amphibious operations are divided into three types: invasion, seizure, and raid.[1]

The first type includes strategic operations, with the objective of establishing a new front or taking control of enemy territory. All arms and services participate in such operations. The invasion forces may include one or several ground forces field armies as the principal invasion forces, and one or two Marine divisions as assault forces with the mission of seizing a beachhead and securing the subsequent landing of troops. If necessary, an airborne assault force of one or two airborne divisions may be landed behind enemy defense lines.

Invasion-type amphibious operations are conducted in cases where the enemy possesses suitable reserves, extensive territory, a well-developed system of transportation and roads, enabling him to maneuver his forces extensively and to prepare in advance to repel an invasion force. For this reason concealment of preparations for such an operation and speed in conducting it are particularly important.

It is assumed that invasion forces may employ nuclear weapons immediately prior to or during an amphibious landing operation.

The second type includes amphibious operations of operational [minor strategic or major tactical] significance, the objective of which is the capture and holding of islands, peninsulas, coastal areas, naval or air bases situated in overseas territories or fairly remote from areas of concentration of enemy main forces. Such operations are as a rule carried out in the interests of naval forces by one or two reinforced Marine divisions. Army units and large units can be attached if necessary.

In operations of the seizure type enemy activities are restricted by limited territory and the lack of reserves. Consequently the enemy is unable to maneuver his forces. Normally such operations occur during daylight hours. Under certain conditions nuclear weapons may be employed.

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* From materials in the foreign press.

Amphibious operations of the third type are of a tactical character. Their objective is reconnaissance, sabotage, harassment or diversionary activities. As a rule the landing force leaves after carrying out its missions. Surprise, speed and coordination are the guarantees of their success. It is therefore recommended that such operations be carried out during hours of darkness. Depending on the nature of the missions, landing forces may include subunits from a platoon to Marine regiment. Employment of nuclear weapons is not very probable.

Amphibious Landing Forces

All forces taking part in an amphibious operation are organizationally within a unified amphibious landing task force, consisting of ground, naval and air forces.[2]

The ground or landing forces include Marine units and subunits, as well as army units and large units in large-scale amphibious operations in which Marines make only the initial assault. Ground forces, with air and naval gunfire support, neutralize the enemy's defense against the landing operation, seize and hold a beachhead, and then penetrate deep into enemy territory.

The *U.S. Marines* consist of regular troops and a reserve.[3] The regular troops include three Marine divisions (1st and 3rd -- in the Pacific, and 2nd -- in the Atlantic), reinforcement and service units, and three Marine air wings (1st and 3rd -- in the Pacific, and 2nd -- in the Atlantic). Together with personnel of shore installations, security subunits and shipboard detachments, the Marines total more than 250,000 men.[4] The organized reserve comprises the 4th Division, reinforcement and support units and subunits, plus the 4th Air Wing, a total of approximately 48,000 men. In addition, a large number of officers and enlisted men are in the so-called voluntary reserve.

The division is the basic tactical large unit of the Marines, capable of operating, with suitable reinforcement, both independently and within the framework of larger amphibious assault forces. It has a headquarters, three Marine regiments, an artillery regiment and the following battalions: headquarters, reconnaissance, engineer, motor transport, medical, service and shore parties; it totals almost 19,000 men.

A Marine regiment contains approximately 3850 men. An artillery regiment contains 18 155 mm nuclear ammunition self-propelled howitzers and 54 105 mm howitzers.

Reinforcement and service units and subunits consist of reconnaissance companies, artillery groups and batteries (203.2 mm nuclear-ammunition self-propelled howitzers and 175 mm self-propelled guns), tank battalions

(17 heavy, 36 medium and 9 flame-throwing tanks), amphibious APC battalions, as well as engineer, medical and other service subunits.

The basic Marine aviation tactical large unit is the air wing, consisting of from two to four fighter/attack groups, as well as a number of other groups -- headquarters, assault-transport helicopters, flight control, service, and Hawk AA missile battalion. A Marine air wing contains a total of 350-400 fixed-wing and rotary wing aircraft and 24 Hawk AA missile launchers.

In conducting an amphibious operation, Marines are landed, taking into consideration the principle of conducting combat, in battalion landing teams (BLT), which usually include command, headquarters and entities for coordination with naval and air support forces, an infantry battalion, one or two artillery batteries, a tank platoon, amphibious APC and amphibious tank subunits, a shore party with the mission of improving the landing site, and amphibious force rear services.[5]

The battalion landing team, reinforced by a fighter/attack squadron and a squadron of transport-assault helicopters, comprises a Marine expeditionary battalion (up to 2800 men), capable of conducting an independent small-scale amphibious operation (raid). Three battalion landing teams comprise a regimental landing team (6000 men) which, together with a Marine air group and several squadrons of transport-assault helicopters, forms an expenditionary brigade totaling up to 10,000 men. A reinforced Marine division (28,000-31,000 men) with attached air wings comprises an expeditionary large unit totaling up to 43,000 men.

Naval forces participating in an amphibious landing operation usually include:

an amphibious task force, for transporting personnel, combat equipment and various supplies from ports of embarkation to the objective area and transfer from ship to shore;

a group of escort ships, which may include, depending on the scale of the operation snd situation conditions, ships of various types, from minesweepers to aircraft carriers;

a group of fire support ships, consisting of cruisers, destroyers, LFRs and gunboats; [LFRs = inshore fire support ships]

an underwater demolition team, which has the mission of conducting underwater reconnaissance, clearing approach routes to the beach, destroying natural and man-made obstacles, disarming mines and marking approaches for the passage of landing craft, landing ships, and amphibian vehicles to shore;

a group of supply ships, consisting of supply transports, oilers, repair ships, hospital ships and other vessels;

a group of naval transport command vessels and chartered merchant fleet vessels, transporting the support and subsequent echelons of the amphibious force.

Amphibious forces. Special amphibious warfare ships, organizationally within the amphibious forces of the Atlantic and Pacific fleets,[6] are the primary vessels employed to transport Marine units and subunits from friendly bases to the *AOA. As of 1 July 1970 U.S. regular naval forces contained 93 amphibious warfare ships, the majority of which, with the exception of amphibious assault ships (LPH) and amphibious transport, dock (LPD), are obsolete ships dating from World War II (see Table).

U.S. Amphibious Warfare Ships

Type of Ship	Presently Operational in Active Naval Forces	Under Construction	In Reserve
Amphibious Command Ships (LCC)	2	2	—
Amphibious Assault Ships (LPH)	7	—	—
General Purpose Assault Ship (LHA)	—	5	—
Dock Landing Ship (LSD)	12	4	10
Amphibious Transport, Dock (LPD)	12	3	—
Amphibious Transport (LPA)	4	—	9
Amphibious Cargo Ship (LKA)	12	—	6
Fast Amphibious Transports	—	—	11
Tank Landing Ship (LST)	44	13	17
Total	93	27	53

Adoption of the strategy of "flexible response" has greatly increased demands on mobility of armed forces, particularly amphibious forces. Because of this the U.S. Navy has elaborated and is successfully implementing an extensive program of construction of fast amphibious warfare ships (with speeds not less than 29 knots). By 1973 it is planned to commission five dock landing ships, five amphibious cargo ships and 20 tank landing ships of new classes, which will enable the U.S. Navy to transport simultaneously a reinforced division across the Pacific and two thirds of a division across the Atlantic. The remaining third of a division will be transported

* amphibious objective area

across, with a slight delay, on ships activated from the reserve or quickly transferred from the Pacific. Another improvement in amphibious forces is development of a totally new type of amphibious warfare ship, the general purpose assault ship (LHA), which will combine the characteristics of an LPH, an LPD, and an LKA. Nine of these ships are to be built by 1976.

The experience of the war in Vietnam has shown that U.S. cruisers and destroyers do not fully meet the demands imposed on fire support ships. They do not carry missile launchers for fire at shore targets, naval gun firepower is comparatively small, while their deep draft prevents them from approaching close to shore. At the present time a special inshore fire support ship, the LFS, is being developed; this ship will combine the firepower of a cruiser's main batteries and the rocket launchers of inshore fire support ships, which have proven highly effective in the war in Vietnam. It displaces 8-10 thousand tons and has a speed of 20 knots. It will fire missiles with a range of up to 100 miles, and will carry 203.2 mm and 125 mm naval gun batteries capable of firing special projectiles up to 30 miles. The first of these ships should be commissioned in the mid-seventies.[7]

The U.S. Navy is devoting considerable attention to the construction of new landing craft, since present landing craft, such as the LCU, LCM, LCPL, and LCVP are slow (speed 8-10 knots) and have poor maneuverability. The SK-10 air cushion vehicle, which is presently in the development stage, is expected to become operational in 1972; this craft will have displacement of 160 tons, will have a speed ranging from 40 (with winds from 13-18 mph) to 80 (wind calm) knots and a range of up to 100 miles. This will make it possible for transports to stand off the beach a distance of 25 miles, which will substantially reduce the possibilities of detection and enemy attack on the amphibious assault ships and forces at the most dangerous moment. Less than one third as many landing craft will be needed. At the present time three LCU, 12 LCM and 17 LCVP are required to land a battalion landing team, while in the future only nine SK-10 vehicles will be required to land a force of the same size.[8]

Preliminary studies are being conducted in the area of development of large air cushion amphibious landing ships displacing 500 tons, with future displacements up to 5000 tons. The development of such ships, with speeds ranging between 60 and 80 knots, will make it possible to reduce the time required to carry amphibious forces across the ocean to 36-48 hours.

Phases of an Amphibious Operation

Regardless of scale, each amphibious operation, in the opinion of American military experts, consists of five phases: planning, embarkation, rehearsals, movement to the objective area, and the assault.[9]

A large amphibious force is usually landed in several echelons. The first landing echelon includes assault elements to seize a beachhead, as well as equipment and supplies in sufficient quantities to support the activities of the assault elements for a period of 10 days. The second and subsequent echelons constitute additional personnel and 30 days of supplies.

Planning of an operation begins immediately after a corresponding directive is received from the JCS or theater commander; this directive specifies the general plan and scale of the operation, its main stages and designates the commanders of the combined amphibious task force and assault forces. As soon as the directive is received an operation headquarters is set up, which drafts a preliminary plan of operations and determines the missions of the services and commands. Subsequently the headquarters of the forces assigned to conduct the operation proceed to detailed planning. Three plans are worked out simultaneously: operations, embarkation and support services. The initial date for planning is the day the amphibious landing begins (D day), in respect to which all basic phases and events are planned. Planning is usually done with the inverse method: initially the assault force landing plan and ship maneuver diagram are prepared, and then the loading plan on their basis.

Embarkation. Two methods of embarkation are employed for the sea transport of troops, combat equipment and supplies: "combat" and "administrative." The former is employed for carrying the first echelon of the assault force, which lands on the beach under hostile fire. It provides for utilization of available space on board amphibious warfare ships aimed at preserving the integrity of the combat subunits and their capability of engaging with maximum effectiveness and minimum losses during the initial assault phase. It is calculated that with this method of loading, 70 to 80 percent of the usable space of amphibious warfare ships is utilized.

The second method calls for maximum utilization of available space on amphibious warfare ships and is employed for transporting the second and succeeding echelons of the amphibious force, for transporting cargo and combat equipment to be off-loaded at specially-equipped piers or berths, with no hostile activities. This method is also employed if the landing operation can be executed through bases, ports or sections of coastline captured or belonging to friendly countries.

The loading of a reinforced Marine division requires several days; each subunit is loaded aboard in inverse order of the priority in which it is desired on the hostile beach.

On the basis of past exercises, 50 to 60 amphibious warfare ships are required to carry a reinforced division.[10]

Rehearsal of the landing operations is performed in order to test all operation plans, to work out problems of control, organization of communications and coordination of participating forces. Rehearsals are carried out under conditions approximating those of the contemplated operation. Each rehearsal is followed by critiques at all levels of command in order to evaluate the exercise, to emphasize lessons learned, and to correct mistakes.

Movement to the objective area. Upon completion of loading, the ships of the first echelon proceed to an anchorage to await the forming of the convoy. The formed convoy, escorted by warships, then proceeds to the staging or rendezvous area. Large convoys are normally broken down into several groups, which steam in dispersed formations in order to minimize losses in case of enemy employment of nuclear weapons. Immediate convoy protection is provided by destroyers and ocean escorts, including guided missile ships. ASW HUK groups are deployed in the directions of most probable hostile submarine threat. Surface unit air cover as well as AAW for the amphibious task force in the staging area and during the crossing are provided by carrier task groups and guided missile ships.

The time during the crossing is used for final refinement of the amphibious operation plans, holding conferences and briefings, inspecting combat equipment and weapons, and correcting problems.

The assault covers the time from the moment the main assault forces reach the AOA to successful completion of the assigned missions. It includes preparation of beaches and offshore approaches, transfer of assault forces from ships to landing craft, movement of landing craft and helicopters to the beach, landing of the first echelon, and subsequent activities on shore.[11]

It is considered that the assault will be conducted in a combined manner if two thirds of the first-echelon forces are landed by watercraft and one third by helicopters to the rear and flanks of the enemy defense. The assault frontage of battalion landing teams will total 700-2000 meters, with 4-5 km between teams. If two reinforced regiments are landed by watercraft and a third by helicopter, the frontage of a reinforced Marine division will be 20-30 km, and the depth of the beachhead approximately 40 km.

A large-scale amphibious operation normally begins with heavy strategic air and missile strikes at shore defense installations, hostile missile bases and airfields when the amphibious task force is about 1500 miles from the AOA. If necessary, nuclear weapons may be employed at this and at succeeding times, at the decision of the director of the operation. When the convoy reaches a distance of 500 miles from the AOA, embarked attack

aircraft take off from their carriers and attack enemy troop positions and major shore and air defense installations. Upon arrival in the AOA a carrier task group maneuvers at a distance of 100 miles from shore, providing air cover to the amphibious task force and delivering continuous airstrikes on the landing sites. As the assault phase begins, embarked aircraft provide close air support to the assault elements on the beach.

Naval gunfire bombardment begins at dawn on the day of the landing. Up to the moment when landing craft cross the LOD (30 minutes prior to arrival of the first wave on the beach) artillery support ships deliver aimed artillery fires on defensive installations and enemy personnel, after which intensive naval gunfire is continued on the immediate beach and landing zone defenses until the safety of the leading waves requires lifting of fire. Then, fire is concentrated on positions farther inland, with the objective of neutralizing hostile weapon emplacements and isolating the AOA from counterattack.

Upon arrival in the AOA the amphibious transports take their positions off shore (depending on degree of hostile activity, configuration of coastline and depths), from 4 to 10 miles from the beach, and off-load their landing craft. The assault subunits begin loading 2 hours before H-hour (the time of the landing of the first wave of helicopters or landing craft). Upon completion of loading, the landing craft are directed to proceed to the line of departure, forming up into waves en route. The LOD will be situated 1.5-3 miles from the beach. The landing craft proceed toward the landing zones on a signal from the command ship.

The assault detachment of the battalion landing team lands in 7 to 8 waves. The first wave normally consists of two engineer vehicles, which have the mission of destroying obstacles and mines, and 6-7 amphibious tanks, which deliver continuous fire on the landing zone, in order to neutralize weapon emplacements and destroy enemy personnel. Two or three minutes after the first wave, the second wave approaches the beach, followed by succeeding waves at 10 minute intervals; the second and succeeding waves consist of 6-8 amphibious APC, each carrying 35-40 Marine infantrymen. First-assault subunits landing with the second and third waves (up to a company of Marines), advancing in short bursts and delivering continuous fire, seize key positions and support the landing of subsequent waves. After consolidation on the beach, the assault force, with support of airstrikes and naval gunfire, advance deep into the enemy defense, with the objective of seizing a beachhead and linking up the battalion and regimental landing areas.

Shore party subunits land together with the assault troops; shore party personnel control landing craft traffic, as well as offering navigation, engineer, medical and support services to the assault force during the landing operation. Artillery, tanks, regiment and division reserves,

ammunition and supplies are transported to the beach at the request of the landing force unit and subunit commanders.

As many as 25 LCU, 400 LCM and more than 100 amphibian APC are required to carry a reinforced Marine division from ship to shore.

A helicopter-borne assault force is landed behind the enemy or on his flanks, to a depth of up to 40 miles, simultaneously with or somewhat later than (up to 60 minutes) the waterborne assault; the helicopter-borne assault force seeks to gain tactical surprise, to block probable avenues of approach of enemy reserves, to destroy important military installations and to scatter enemy effort: the first wave consists of 12-13 helicopters, followed by subsequent waves of 6-8 helicopters each at 15-minute intervals.

The total time required to land an expeditionary division, including reserves and supplies, is 3-4 days.

Second-echelon ships arrive in the AOA on the fifth day following D-day.

* * *

Realizing the role and significance of amphibious operations in war, American military leaders attach great importance to suitable training of naval forces and Marines. A large number of amphibious exercises are conducted each year. The biggest such exercises in 1970 were: Exotic Dancer III in the Atlantic (May-June), Beagle House (June) and High Desert (August) in the Pacific.[12]

In addition to working on the tactics of conducting amphibious operations as specified in this article, these exercises were also used to study new methods and combat techniques for Marine, air and amphibious forces. Particular attention during the course of combat training was focused on speed and coordination of personnel actions in transfer from ships to landing craft, and in landing the waterborne and helicopter-borne assault echelons; on actions of reconnaissance and saboteur teams, and underwater demolition teams; on organization of close air support and naval gunfire support, and coordination of the various services and arms during the operation.

The war in Vietnam has demonstrated the necessity of elaborating the tactics of Marine combat operations under river and swamp conditions. During the last 2 years these problems have been given heavy attention at the majority of amphibious exercises, and the lessons learned are being employed in South Vietnam. In riverine operations the Marines are employed to land small diversionary or reconnaissance groups, to capture specific

installations or small built-up areas, and to set up ambushes and patrols in an antiguerrilla effort.

On the basis of the above one can state that the role and importance of amphibious operations have increased substantially in modern warfare. In the opinion of American military experts, even in the case of a nuclear war there will occur situations whereby, following a massive nuclear attack, the final word will still go to the amphibious-assault infantryman.

FOOTNOTES

1. Marine Corps Gazette, November 1967.
2. Rivista Maritima, No 4, 1967.
3. Jane's Fighting Ships, 1970-1971.
4. Navy Times, 14 October 1970.
5. Rivista Maritima, No 4, 1967.
6. Jane's Fighting Ships, 1970-1971.
7. U.S. Naval Institute Proceedings, No 7, 1969.
8. Ibid., No 3, 1967.
9. Marine Corps Gazette, January 1966.
10. Navy Times, 20 November 1968.
11. Interavia, May 1966; Naval Review, 1967, 1968; N. Brown: Strategic Mobility.
12. Navy Times, 6 May, 17 June, 1 July 1970.

AT READERS' CONFERENCES

In March and May of this year the staff of this journal held readers' conferences in the Baltic and Turkestan military districts, in the Red Banner Northern Fleet, and at the Simferopol' City Garrison (Odessa Military District). Typical of all conferences was active participation by attending officers, general officers and admirals of district and fleet directorates, military training establishments, representatives of ground troops units and large units, and naval large units.

The direct supervisors of these conferences were: Lt Gen M. T. Ivanov in the Baltic Military District; Lt Gen A. M. Zvartsev in the Turkestan Military District; Flt Adm S. M. Lobov in the Red-Banner Northern Fleet; Col A. P. Biryukov at the Simferopol' City Garrison. In their addresses they gave a positive assessment of the quality of materials published in this journal and the assistance they offer officers, general officers and admirals in solving the problems of staff operational training, troop combat and field training, as well as in matters of personnel political and military indoctrination, moral-psychological conditioning, and in developing unified views on the nature of modern warfare.

Many speakers noted that the journal devotes considerable attention to Marxist-Leninist doctrine on war and army as well as the military legacy of V. I. Lenin. A series of articles published in connection with the Lenin Birth Centennial and the sesquicentennial of the birth of Friedrich Engels enables the readers to gain a deeper understanding of Marxist-Leninist doctrine on war and army and the fundamental theses of Soviet military doctrine and military art.

Among materials published in 1970 and the first issues of 1971, the readers' attention was drawn in particular by such articles as "The International Character of Leninist Doctrine on Armed Defense of the Conquests of Socialism," by Mar SU I. Yakubovskiy; "Leninist Principles of Party Political Work in the Soviet Armed Forces" by Army Gen A. Yepishev; "Soviet Military Science During the Great Patriotic War" by Mar SU M. Zakharov; "V. I. Lenin, Ingenious Military Thinker and Commander" by Army Gen S. Ivanov; "Friedrich Engels on Military Organization of the Proletarian State" by Col A. Babin; "Problems of History and Theory of Military Science" by Maj Gen V. Zemskov; "Military Strategy and Economics" by Col Gen M. Povaliy; "Methods of Solving Operational Problems with Automation Devices" by Col Gen V. Druzhinin and Col D. Kontorov; "Organization of Antiaircraft Defense of Amphibious Assault Forces" by Maj Gen Arty M. Botin; "On Graduate Study, Degrees and Ranks" by Maj Gen P. Yegorov; "Supremacy at Sea" by Capt 1st Rank N. Petrov; "Factors Determining Naval Construction and Basic Trends in Navy Development" by Rear Adm K. Stalbo; and others.

As the speakers noted, the journal helps them solve a wide range of problems. The journal presents problems of military theory taking into account the major trends in development of science, technology and armament. Thanks to this one can gain a better understanding of the substance of Marxist-Leninist doctrine on war and army, the principles of military organizational development and the methodological principles of Soviet military art.

Speakers at the conferences noted that the following articles on the 24th CPSU Congress were well received: "Leninist Course," "The 24th CPSU Congress on Current Problems of Building Communism and Strengthening the Defense Might of the USSR" by Cols S. Lukonin and A. Migolat'yev, and others. They constitute a useful impetus for studying the Central Committee Report and other documents of our party congress, particularly pertaining to strengthening national defense and the link between solving this problem and the general problems of building communism in the USSR.

In addition the conferees made a number of critical comments and suggestions on further improving the quality of materials published by the journal.

Lt Gen I. S. Mednikov (Baltic Military District) suggested a more extensive study of problems of troop moral-political and psychological training as well as fundamental, key problems of organizing political effort. He also appealed for a more thorough study of the problems of military art.

Maj Gen S. A. Bashuk stated that the journal should contain more interesting articles on operational art and should more extensively publish responses to them. He called upon line officers to participate more actively in writing articles for the journal, and he called upon the editors to appeal more frequently to the readers to submit specific suggestions on articles.

Maj Gen Arty V. V. Zmirlov and Lt Col T. I. Timofeyev (Turkestan Military District), Maj Gen A. T. Zaytsev (Baltic Military District), and Capt 3rd Rank G. P. Petukhov (Red-Banner Northern Fleet) suggest that the journal give broader coverage to methodological problems of automating troop control, taking into account the features of each control element and tasks being accomplished, as well as reducing the number of documents in the control system. It would be desirable to publish survey materials on the adoption of automation devices, including materials written not only by Soviet authors but by foreigners as well, both from socialist and capitalist countries; problems of scientific organization of labor in coordination with automation of control should be discussed, since theory of control requires mutual utilization and unification of such sciences as cybernetics and scientific organization of labor.

In the opinion of Col N. P. Dedovich (Turkestan Military District) and Maj Gen (Res) A. A. Kazaryan (Simferopol'), Capt 1st Rank V. D. Kudinov, Capt 1st Rank R. V. Gotovchits, and Capt 1st Rank V. N. Romanenko (Red-Banner Northern Fleet), the journal should publish more materials on the military strategic planning of the major imperialist powers, the nature and scale of their militarist preparations.

Lt Cols M. I. Shteynberg (Turkestan Military District) and A. I. Tolkuyev (Odessa Military District) suggest that the journal carry a regular column on scientific and indoctrinational work at military higher schools and that it devote greater attention to synthesis of advanced methods of adoption of knowledge of educational science and psychology, as well as programmed learning.

Col A. Ya. Grigor'yev (Turkestan Military District) and Lt Col A. P. Uspenskiy (Baltic Military District) suggested that the journal carry articles on problems of synthesized experience in organizing and conducting military scientific and military history research by operational staffs.

The journal should focus constant attention on problems of protecting troops against weapons of mass destruction. Particularly vital are problems pertaining to assessment and prediction of radiation situation, zones of destruction, fires, flooding, and the role of engineer troops in carrying out measures supporting subunit and unit combat operations. This was the subject of statements by Lt Col A. F. Stupakov (Turkestan Military District) and Engr-Capt V. G. Smirnov (Baltic Military District).

Col Ye. A. Shchepetov (Turkestan Military District), Capt 1st Rank N. M. Tataurov, Maj Gen Avn V. Ye. Ruchkov, and Maj Gen Med Serv A. B. Zandanov (Red-Banner Northern Fleet) noted that the journal should give more extensive coverage to such vital rear services matters as organization of supply to troops in the field under conditions of heavy damage to lines of communication, measures for keeping rail lines operating, concealing supply stockpiles, replenishing mass casualties, field medical support, etc.

Maj V. S. Filimonov (Turkestan Military District) suggested that the journal devote more attention to a discussion of current problems of military art as applied to theaters of military operations with special conditions (mountain-desert, forest-swamp terrain, etc). Rear Adm N. V. Solov'yev, Col V. P. Ivanov, and Capt 1st Rank V. A. Nikitin (Red-Banner Northern Fleet) spoke of the necessity of more extensive publication of articles on art of naval warfare. Col Ye. I. Slovtsov (Baltic Military District) stated that the journal should devote more attention to elaboration of theoretical problems pertaining to coordination of military district troops with civil defense units, based on the experience of the Great Patriotic War.

Other recommendations were also presented at reader conferences, aimed at improving the quality of articles and expanding the range of problems discussed, particularly the employment of air power in conducting combat operations involving only conventional weapons, on new trends in communications development, on a data transmission system and standardization of combat documents, on the influence of automation and mechanization of control on the organizational structure of headquarters and troops, on elaboration of information processes, on ways to increase the effectiveness of reconnaissance, etc.

* * *

After studying suggestions made at the conferences, the editorial staff plans to publish in the latter half of 1971, in order to meet reader requests, a number of synthesizing articles of a problem nature, and to give maximum consideration to submitted suggestions in drafting the journal's publication topic plan for 1972.

The editors would like to express their sincere gratitude to the command and political officials of the military districts and Red-Banner Northern Fleet, who did a good job of organizing these conferences, as well as to all the officers, general officers, and admirals who participated in them.